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EGYPTIAN ORIGIN OF THE IONIC CAPITAL AND OF THE ANTHEMION.

[PLATES XVIII-XXIX.]

THESIS.—I. The Ionic capital is of Egyptian origin, being derived from a conventional form of lotus. Lotus forms on Kypriote vases, compared with Kypriote Ionic steles and capitals, offer the related demonstration. The Assyrian Proto-Ionic is derived from Egypt.

II. The anthemion and the Greek palmette are developments from Egyptian lotus motives. Demonstration from vases of Rhodos and Melos.

III. The Rosette is a distinctively Egyptian lotus motive. Demonstration from the monuments and from botanic forms. The Assyrian rosette is derived from it.

IV. An Egyptian lotus-palmette precedes the Assyrian palmette, which is derived from it. The original form is a combination of a voluted lotus with the lotus-rosette. Demonstration from Egyptian transition motives.

V. The Assyrian "Sacred Tree" belongs to a cult in which the lotus plays a part, and is a lotus "tree."

VI. The "egg and dart" and "egg and leaf" mouldings are derived from an Egyptian lotus border. Demonstration from Kypros and Naukratis.

VII. The geometric triangle motives of the archaic Greek vases, and of their Phœnician predecessors, are lotus derivatives. The geometric quadrangular designs of Kypriote vases are sometimes rhomboids derived from geometric aspects of the lotus, and sometimes are formed by various combinations of lotus triangles. With rare exceptions, if any, all floral forms of the early Greek vases are lotus derivatives, and the Mykenai spirals are probably of the same origin.

I was led to the results announced in this paper, some of which are probably novel, by Mr. Clarke's essay on "A Proto-Ionic Capital from

the site of Neandreia" in Vol. II, No. 1, of the *American Journal of Archæology*. This essay contains an exhaustive review of the literature of the Ionic Capital up to date, and offers a valuable basis and starting point for observations throwing new light on the origin of the Ionic Order. The authorities there summarized unite in considering certain Assyrian reliefs as pointing to an Assyrian origin of the Greek Ionic capital. The view, held by Semper, which considers the volutes of the Assyrian palmette to be the starting point of the volutes of the Ionic, seemed ultimately confirmed by the capital from the site of Neandreia, and by its connection with the palmette-volute designs of the ivories from Nineveh, illustrated by Mr. Clarke. The observations which I have to offer do not antagonize an influence on Greek art of the Assyrian Proto-Ionic, but they lead us to consider its influence as purely secondary and reactive, and oblige us to look to Egypt for the origin of both Greek and Assyrian Proto-Ionic forms.¹

For many years I had been familiar with forms of the lotus-flower (PL. I, Nos. 1-5) on certain Kypriote vases which offered such striking analogies with the outlines of the Ionic capital that I could but suspect a connection between the two. Mr. Clarke's essay led me to examine the relation more closely.² In the necessary examination of the literature on Kypriote art I found that, without reference to these vase designs, Georges Colonna-Ceccaldi had already suggested that the Ionic capital was derived from the lotus. The suggestion occurs in relation to a Kypriote stele (PL. I, 11) in an article of the *Revue Archéologique* (vol. XXIX, p. 24, 1875) on the sarcophagus of Athienau republished in Colonna-Ceccaldi's collected essays—*Monuments de Chypre*—a posthumous publication. He suggests that the volutes of this stele found with the sarcophagus represent petals of the lotus, and that the introrse scrolls represent the stamens.³ In a subsequent

¹ It is possible, however, that Syria developed that particular transitional form of the original Egyptian motive which has left its mark on the triangle or triangles placed between the volutes of certain Kypriote steles and capitals: this will be presently specified and considered.

² It was not however till the close of July, 1887, that I began the observations recorded; the necessary and related studies have been made in the following two months. Doubtless many references have escaped me, and observations in works not accessible till the moment of going to press show that abundant additional demonstration of the positions taken may be offered.

³ "Un motif de chapiteau qu'on retrouve bien souvent et qui n'est autre que la traduction architecturale de la fleur de lotus. Ici, les pétales sont représentées par

article of the *Revue Archéologique* (vol. XXXIII, p. 176, 1877), *Une patère de Curium*, he suggests that the intermediate triangle of this stele represents the ovary, but that triangles in other capitals may represent petals. In this latter case he does not say what the volutes would represent.⁴ These suggestions of Colonna-Ceccaldi, made in a discussion about the bark of Isis, attracted no notice even from authors who have frequently quoted his writings, like Chipiez, *Origines des Ordres Grecs*, Perrot and Chipiez, *Chypre, etc.*, who are among the authorities quoted by Mr. Clarke.⁵ Colonna-Ceccaldi's erudition and conscientious exactitude of description have made his writings quoted authority, but his results in matters of interpretation have never made their way into standard works. Hence we understand the indifference of the authors noted to these suggestions, made casually without elaboration and without proof, in essays devoted to other subjects. His intuition was correct, in the present instance, as to the connection between the Ionic capital and the lotus, but his interpretations were erroneous, except in the point relating to triangles and the petals, and here by the suggestion that one triangle represents the ovary, and that the volutes also represent petals, he had weakened his case by supposing that similar forms might represent dissimilar things.⁶ We shall see that the volutes of the Ionic are derived from the down-turned leaves of the lotus calyx

les volutes, les étamines s'élancent jusqu'à l'abaque, et le pistil est remplacé par deux Sphinx affrontés, mis là sans doute pour symboliser la double énigme de la fécondité et de la conception.

"L'ordre ionique, l'ordre aprotique par excellence, dérive de là très probablement—Cf. les chapiteaux Chypriotes du Louvre."

"Par exemple on voit que la barque, recroquevillée aux deux bouts, n'est en somme que la réunion de deux étamines de lotus à grandes volutes . . . ; l'ovaire est figuré sous forme de chevrons superposés, la pointe en haut, deux, quatre ou six, et refermant dans leur sinus un bouton de fleur renversé (?) (*sic*) seul ou accompagné du croissant, aussi renversé et dans la cavité duquel est le disque solaire. Sur six chapiteaux de Golgos toute-fois, des chevrons gravés au trait et divisés par couples me paraissent représenter les pétales de la fleur de lotus."

⁵ For those who are familiar with Colonna-Ceccaldi's writings it is not necessary to observe that his Oriental studies and sympathies prompted him to a systematic use of symbolical interpretations in matters of Kypriot art which are quite at variance with the tendencies of Greek art, as well as sometimes at variance with the rather mercantile mythology of Phœnician traders, and consequently unavailable at the points where Greek art touches the Oriental.

⁶ Colonna-Ceccaldi's symbolizing methods are characterized by his suggestion as to the concentric rings on Kypriot vases, which he considers designs in perspective of a female breast: *Monuments de Chypre*, p. 279.

(fig. 1), and that the petals do not curl downward like the calyx leaves. In the stele noted and in similar steles there is no evidence to connect the upper portion with the stamens of the flower, and there is considerable evidence to the contrary. This upper portion of several Kypriote steles is a late Phœnician modification of a form subsequently to be explained. At all events these steles are only a Kypriote survival of Proto-Ionic forms subsequent to the actual development of the Ionic capital. The sarcophagus of Athienau with which fig. 11 was found is not earlier than 500 B. C.

A much more formal, explicit, and extended announcement of the Egyptian and lotiform origin of the Ionic Capital was made by M. Marcel Dieulafoy in his work *L'Art Antique de la Perse*, (III^{ième} partie, *La Sculpture Persepolitaine*, pp. 34-55). This work, which appeared in 1885, is more recent than anything published on the Ionic Capital, excepting Mr. Clarke's essay, and preceded it so directly that his failure to refer to it is easily explained. I am not aware that the views of M. Dieulafoy on the Ionic Capital were made known by reviews of his book: they did not come to my notice until my paper was ready for the press. M. Dieulafoy takes for his starting point that form of Egyptian Capital which is figured at PL. IX-4. He supposes the volutes of the Ionic to be developments from lotus petals represented as curling downward under pressure from above. The central portion of the design is interpreted to represent the ovary.⁷

The view taken corresponds in elementary points to that announced by Colonna-Ceccaldi. After the lotiform origin of the Ionic Capital is universally accepted, the interpretation of individual details would probably not be considered a matter of vital importance. Pending this universal acceptance, it is desirable to present an interpretation which compels it and makes it necessary. On this account, I shall return briefly to M. Dieulafoy's interpretation after my own has been offered. These scholars were led intuitively to a correct result and, starting from this result, they offered the most available interpretation of an ultimate conventional form. On the other hand, if we start from the natural form of the flower itself, as it is represented on Kypriote vases, it appears as if a more convincing demonstration can be obtained

⁷ "En posant au-dessus de la fleur un abaque rectangulaire les pétales s'écrasèrent, se retournèrent légèrement sur eux-mêmes et laissèrent apercevoir, en s'ouvrant, l'ovaire placé au centre de leur corolle. Entre la corolle et la tige se distinguaient les enveloppes foliacées du calice;" p. 39.

—one which defines the result not only as a fair probability but also as an unquestionable fact.

The actual relations of the lotus flower to the Ionic capital are indicated by designs on certain Kypriote vases in the Metropolitan Museum of Art, which are said by the Museum catalogue of pottery to come, generally, from the neighborhood of Ormidia (PL.* I, 1-5), and by others in the Lawrence-Cesnola Collection, published by Alexander di Cesnola (*Cyprus Antiquities*, photos. 10 and 11): see also his *Salaminia*, p. 255, fig. 242. Certain Kypriote vases, on which the lotuses with volutes appear, have been published, turned in such a way as to conceal the flower on the neck of the vase (Perrot and Chipiez, *Cypre*, p. 699). Aspects of the down-turned and downward curling calyx leaves are seen on the Kypriote vase published by Ohnefalsch-Richter (*Jahrbuch d. arch. Inst.*, 1886, pl. 8). I do not know what the European Museums may offer, but the similarity of the vases with designs showing the curled calyx leaves to the rest of the Græco-Phœnician pottery of the New York Museum makes it probable that any collection of Kypriote vases might exhibit similar examples.⁸

For students to whom the lotus flower in actual growth is not available for comparison the easiest reference is to the design in the French *Description de l'Égypte; Botanique*, pl. 61, but this design, republished in Perrot's *Égypte*, p. 577, does not show the down-turned calyx leaves, as I have been able to observe them in all varieties of the Egyptian lotus—white, blue, and rose-colored,⁹ which are cultivated in

⁸ Two vases showing the lotus flowers with calyx-leaves in volutes, were roughly and inaccurately published in colored drawings by LENORMANT (*Gazette Arch.*, vol. VIII, pl. 14, p. 97), as being in the New York Museum. It does not appear that Lenormant had seen the originals. Two of the New York vases published by DUMONT et CHAPLAIN show the lotus volutes (*Les Céramiques de la Grèce propre*, p. 200, fig. 42, p. 203, fig. 45). The lotuses of these are better figured in this paper, PL. I-1, 5. The text of Lenormant's notice, about half a page in length, does not specify the designs as being of the lotus; he says "Les ornements consistent en fleurons d'un style tout asiatique." The related text of Dumont et Chaplain uses the words "decor floral" (p. 201) and "décoration qui est mêlée d'éléments végétaux et géométriques" (p. 202), but does not specify the flowers as lotuses. The wonderful examples of the "Sacred Tree" on the vase published by OHNEFALSCH-RICHTER in the *Journal of Hellenic Studies*, vol. v, p. 102, will come under later consideration (PL. XI-16).

⁹ The rose-colored lotus is now extinct in Africa. It continues to be found in Asia.

* N. B. The references made, in the text, to the PLATES illustrating this article are to the number within the PLATE, which is that of the article-series, viz., I-XII: the numbers over the PLATE, which are those of the Journal-series, XVIII-XXIX, are not referred to in the text.

the fountain-basin of the park in Union Square, New York (*fig. 13*).¹⁰ In the examples I have observed, which show this peculiarity, these calyx leaves are well separated from the petals of the flower when in vigorous bloom but have frequently only a slight downward curve in strong flowers, and they do not generally appear in those partly open, which is the usual Egyptian aspect on the monuments.¹¹



FIG. 13.—*Lotuses in Union Square, New York.*

¹⁰ The common white pond-lily, which offers a close resemblance to the lotus flower, does not, like the Oriental and Egyptian varieties, rise above the surface of the water on an erect stem, and consequently in resting on the water does not show the down-turned calyx leaves.

¹¹ A few rapid examinations have convinced me that the phases of the down-turned calyx leaves are numerous. My impression is that all lotuses show this aspect in the later stages of bloom. On two occasions, when I observed the lotuses in Union Square, several flowers showed the calyx leaves in horizontal projection, clearly separate from the flower, as seen on the vase of the Lawrence-Cesnola Collection, in the eleventh plate, 2d vase, 3d line, without quite as much curl at the tips: they might

In the Kypriote designs (PL. I) the central petal is emphatically larger than the others in the open flowers, undoubtedly for decorative reasons or as the result of decorative habit. In some cases, for instance PL. II-5, the form is so schematic and the petals are so reduced in number that, observing the volutes and the enlarged central triangle as the most obvious features of the design, we have no great difficulty in connecting the form with certain Kypriote steles and capitals filling the rest of the plate.

Some allowance must be made for the extra conventional quality naturally belonging to forms in stone. It will be observed in the lotus flower of PL. II, as in the related form of PL. I-4, that the oblong shape of the panel on the vase from which it is taken has caused the expansion of the volutes on the sides and the depression of the intermediate petal triangles. The same tendency would exist in using this aspect of the lotus as a decorative motive for a capital used as a support under pressure. PL. II-1 will then be obviously an aspect of No. 11, if the upper part be removed. Fortunately we are not

be defined, also, as corresponding to those shown on the right hand flower published by OHNEFALSCH-RICHTER in the *Jahrbuch d. arch. Inst., loc. cit.* On the first day of our artist's visit he could find no flower showing this appearance, except the one on the left of the illustration (*fig. 13*) as drawn. When I went with him, on a second occasion, the only flower showing the phenomenon was the one in the centre of the plate, of a white European variety. In *fig. 13* the leaves of the rose-colored variety, rising above the water, are drawn in smaller proportions and on shorter stems than in nature—in order not to increase the size of the cut. The leaves of the white and blue Egyptian variety float on the water. The seed-pods of the rose-colored variety, on the left of the cut, offer the true explanation of many so-called papyrus designs. The lines seen on the pod correspond to those of PL. VI-14, supporting a lotus bud. Variant forms of VI-14, are seen on Egyptian paintings, dotted on top with spots to represent the seeds and their cup-shaped receptacles. This observation has been made by Prisse d'Avennes, who seems, however, to accept forms corresponding to VI-14, as papyrus. Another series of forms commonly mistaken for papyrus are simply lotus flowers in conventional outline. Compare VI-5 with VI-4. It is well known that the natural papyrus is not to be studied in Egypt except in the gardens of one or two private cultivators, which are not open to travellers. A natural example seen in Bordentown, New Jersey, where the Egyptian lotuses also grow, shows the papyrus to be a feathery broom plant (see also cut in PERROT, I, 579). Prof. Allan Marquand, who has been in Egypt, and has visited the papyrus stream near Syracuse, generally quoted as the only spot where the Egyptian papyrus can be now seen, shares my skepticism as to the supposed papyrus capital, and his convictions on this point anticipated my own. PERROT, *Égypte*, p. 582, abandons the hypothesis of Mariette as to the papyrus and the campaniform capital, but does not concede it to be a lotus form. The campaniform capital is proved to be a lotus form by the lotus stele supporting a Horus in ROSELLINI, vol. III, pl. XXI. See also the lotuses of the lotus

obliged to depend on the external resemblance between the more simplified lotus form in the capital No. 1 and stele No. 11 and the pictures of the vases. Two intermediate connecting links are also links in the chain of proof. One of these is a Kypriote stele in the New York Museum, where the large volutes and intermediate lotus petals are associated in the stone carving (No. 2). The other is a stone capital, figured in Colonna-Ceccaldi's *Monuments de Chypre* as a "Dessin inédit" found among his papers after his death. It is indexed with the single word "Dali," followed by a mark of interrogation (No. 8). As the measurements are marked on the original drawing we must presume this capital to have an actual existence, but its present location does not appear. It may be in the Louvre. A Kypriote capital analogous to No. 1 is illustrated in Mr. Clarke's essay (also in Perrot, III, p. 116), and in connection (p. 17) he speaks of the "disturbing triangle" eliminated by the Greek development. There is another stele like No. 11 in the New York Museum and two related ones in the Louvre (Longperier, *Musée Nap. III*, pl. xxxiii; Perrot, III, p. 116).

"tree" with Horus hawk at VIII-3. For Egyptologists it is impossible to associate Horus with the papyrus. A similar association (Isis and Horus in the lotus "tree") defines the plant form of the Palestrina patera; PERROT, III, p. 97; and this is a conclusive demonstration for the form on the Mykenai sword. Both probably represent the seed-capsule with row of seeds above. The campaniform capital is also fully explained by VI-5, as related to VI-4. The supposition of OWEN JONES (*Grammar of Ornament*, pls. for Egyptian ornament), that the overlapping leaves at the base of the papyrus stalks are represented by the decoration at the base of Egyptian columns, is rendered completely improbable and unnecessary by the fact that overlapping triangular lotus petals are a constant feature of Egyptian decoration; and his illustration of the typical "papyrus" colonette (pl. x, Nos. 10, 11) is borrowed, as regards the capital, from a representation of the seed-capsule of the rose-colored lotus.

This digression on the papyrus is important as connected with the evidence that early Greek decoration is mainly based on the lotus. If Egyptian decoration were even more generally based on the lotus than is usually supposed, the explanation is simple for this peculiar aspect of Greek art. The plants on the Mykenai sword are lotuses, and not papyrus as suggested by ULRICH KÖHLER in the *Mittheilungen Athen. Abtheil.*, vol. VII, p. 241.

Mr. Charles Edwin Wilbour, whose wide knowledge of hieroglyphics and long personal intercourse with Professor Maspéro made his opinion of peculiar value to me, was somewhat startled by the view taken of the form VI-5, but on consideration could not think of any hieroglyphic matter to the contrary. The fact that the seed-pod of the rose-colored lotus is never seen by Egyptian travellers has caused mistaken views as to many forms in color, which mistake has then extended to the forms in stone. Probably all forms like VI-14, which have rayed lines not terminating in petals, represent the seed-pod. Those with dots appearing on a rounded top certainly do.

Perrot (III, p. 116) speaks of this triangle in the Kypriote capitals as a provincial irregularity or debasement.¹² Longperier, who publishes No. 1 in *Musée Napoleon III, ibid.*, also alludes particularly to the "chevron." As a reminiscence of the lotus petals, and as connected with the large central triangle of the Kypriote lotuses of PL. I, it assumes a new and decisive significance. Although, as observed already, it continues in steles and capitals which are subsequent to the beginnings of the Greek Ionic, it should serve as a warning not to ignore a progressive movement and development through Kypros of Greek forms in the VIII and VII centuries. The art of Kypros was provincial in the V century, and subject to the reaction of the developed Greek art; but history is full of cases in which a province, once the centre of an active and progressive life, falls behind, and perpetuates only survivals of its earlier art, or yields to later or reacting influences of the art it has helped to create. In this point of view, the history of the Ionic capital, as demonstrated through Kypriote forms, may be considered a finger-post for the study of Kypriote sculpture.

I am far from assuming an exact and direct connection between the specified vase designs, or others like them, and the capitals or steles of Kypros. The study of Egyptian lotus designs shows them to exhibit at one and the same time all possible varieties and combinations of conventional and unconventional treatment, like those on Kypriote vases.¹³ In view of the many instances of Phœnician or Syrian Ionic capitals, some undoubtedly of early date (for instance in Prof. Frothingham's essay *A. J. A.*, III, 1-2, p. 57, PL. VII), we cannot avoid considering Syria as one spot where a Phœnician architectural lotus design of related aspect was used before it passed to Kypros. The exact relations of such a Phœnician design to Egyptian originals have still to be determined. But when the Ionic volutes are once seen to be lotus volutes (compare PL. IX-3, 4 with PL. X-1, 2), the abundance of Egyptian Proto-Ionic forms becomes immeasurably great. Syrian

¹² "Ce qui est moins heureux, ce sont les lignes aigües du triangle, qui separent a leur naissance les deux volutes inférieures."

¹³ For instance, we have in IX-1 a conventional lotus bud supporting a naturalistic flower and two naturalistic buds; above these is a highly conventional form marked by the triangle between volutes and overlaid at the base with lotus petals independent of the conventional form. Above this again is a capital whose upper part shows an aspect approaching the Greek Ionic and devoid of intermediate triangle, while the lower part is covered with overlaid lotus petals and decorated with asps at the sides. The varieties of similar combinations are almost innumerable.

and Phœnician Ionic forms are common, and Oriental fixity of habit makes any anxiety as to dates of individual examples quite needless.

We come now to the Assyrian Proto-Ionic, which is clearly of Egyptian origin by Syrian and Phœnician transmission. I recall the fact that only one actual Assyrian capital has been published (Place, III, 35; Perrot, II, 216); and that the forms so frequently illustrated and quoted are imitative, and in relief decoration. In the case of the Sippara-tablet capital (PL. II-4) we find the tell-tale triangle. Mr. Clarke, misled by his Greek vase design, where a rounded connection appears between the volutes (*ibid.* p. 16), assumes that this has a rounded top, "a bud of semi-circular outline" (*A. J. A.*, II, p. 13), but his own design from the tablet shows the triangle, as does the heliogravure in Ménant, *Cylindres de la Chaldée*, p. 243. On the other hand, we are now prepared to understand that the rounded form connecting the volutes on the capital of Mr. Clarke's vase is nothing but an abbreviated triangle, as we observe it to be between the petals of the "Dessin inédit" of Colonna-Ceccaldi, PL. II-8. Some instances of the triangles connected with Greek Ionic volutes may best be quoted here as called up by the vase illustrated by Mr. Clarke: for instance; the handle of a bronze mirror from Olympia given on PL. II-7 (*Olympia*, pl. XXII, vol. IV); Ionic temple on a late Græco-Etruscan relief found near Perugia, PL. II-6 (Conestabile, *Monumenti di Perugia*, LXVI, XCII).

We have still to deal with the ivories quoted and illustrated by Mr. Clarke (*ibid.* p. 10). Many ivories of the series to which these belong are well known to be of pronounced Egyptian character—possibly or probably of Phœnician manufacture. Among these ivories we find two of special interest, both of Egyptian character (Perrot and Chipiez, II, pp. 222, 535): in one of these an Egyptian figure holds a lotus stalk rising from the lotus volutes, with intermediate petal triangle (PL. II-10); in the other, we see another form of the lotus volutes and petal triangle (detail on PL. II-3), surrounded in the original by stems of the lotus bearing abbreviated lotus palmettes.¹⁴ If these scrolls be connected with those on the steles of the Louvre (Perrot, III, p. 116), we have the upper portion of Kypriote stele PL. II-11. These figures in Perrot explain the so-called "Phœnician palmette," *i. e.*, the upper part of the form II-9. This is an abbreviation of the upper part of

¹⁴ Compare forms on curling stems at base of II-9 with later palmette explanation.

Perrot, III, fig. 52. This again is an abbreviation of the upper part of Perrot, III, fig. 53.¹⁵

II.

What relation do the capital from Neandreia and the ivories illustrated by Dr. Clarke bear to the observations presented? Though it be admitted that the ivories are under Egyptian influence and of Phœnician manufacture, the palmette over the volutes must still be explained. It might be supposed that, under Phœnician or Assyro-Phœnician mediation, the "Assyrian palmette" and the Egyptian lotus volutes had been combined, and that the capital from Neandreia was to be regarded as an ultimate form of a really Assyrian Proto-Ionic, which had grown out of the Egyptian, and had then independently reacted on Greek art. But there are aspects of the lotus on Greek vases from Rhodos and Melos which show this supposition to be untenable. Before comparing the lotus forms of Melos and Rhodos it may be remembered that these two islands were the most important seats of Phœnician settlements next to Kypros, after the time when the Phœnicians had been otherwise generally expelled from their settlements in Greek territories. However, many of the Rhodian vases so clearly resemble Greek pottery from Naukratis¹⁶ that the Rhodian specimens in question cannot well be dated, on this and other grounds, before the middle of the VIII century B. C., from which time¹⁷ Greek colonies in the Nile Delta, if not at Naukratis, may be presumed to have exercised an influence on the Greek pottery of Rhodos, and to have exported to other Greek settlements their own vases.¹⁸ Let

¹⁵ M. DIEULAFOY, in his lotus Ionic theory, has exactly reversed the true state of the case as regards the Egyptian capital, IX-4, by considering the volutes as petals and the triangles as calyx leaves. In this case, the triangles are an independent decoration of conventional lotus petals, without any relation to the appearance of the entire natural form. M. DIEULAFOY says of II-1 (p. 44): "Dans les enroulements du chapiteau phénicien on retrouve les pétales de la fleur de lotus; dans le triangle placé à sa base, les envelopes foliacées du calice que des imitateurs maladroits prirent à tort pour le prolongement des volutes." At page 39 he says of II-3: "Au nombre des ivoires d'origine Egyptienne retrouvées à Nimroud se trouve une plaque où sont reproduits à la fois la fleur de lotus avec ses pétales droits et retournés, c'est-à-dire sous les deux aspects où elle se présente séparément dans la plupart des monuments." The two sentences affirm contradictory views of the central triangle.

¹⁶ GARDNER in *Journal of Hellenic Studies*, VIII, I, p. 119, pl. LXXIX: and the fragments in *Naukratis I*, published by the Egypt Exploration Fund.

¹⁷ See KROKER's paper in *Jahrbuch d. k. deutschen Archäologischen Instituts*, 1886. All of Kroker's results point in the direction of this essay.

¹⁸ Probably this entire subject may appear in much clearer light after the publica-

it be admitted that the vases in question from Melos are earlier than this time, as their date is not yet fixed (Conze, *Thongefässe*); and the progressive relation from Kypros to Rhodos and from Rhodos to Melos (we shall see also from Melos to Attika) is not disturbed.¹⁹ It is a matter of general knowledge that, in the progressive action of Egyptian and Oriental art upon the Greek, there was a development of various local schools of art, and that these, subsequently to their development, sometimes maintained the local character corresponding to an earlier style, after this had reached a higher stage in quarters more closely connected with the final centres of Greek art. Thus the Kypriote Greek pottery apparently never lost its relations to the early stage of Græco-Phœnician development. So much is this the case that Duemmler (*Mittheilungen, Athen. Abth.*, 1886, p. 259), who has given, with Ohnefalsch-Richter, most exact attention to the questions raised by Kypriote pottery, does not seek to distinguish the Kypriote-Phœnician pottery from the Kypriote-Greek. He assumes that a Greek population originally settled Kypros, when it had no fixed art types of its own, and then adopted and continued those of its Phœnician neighbors. A parallel state of affairs as regards a continuation of local styles may be assumed for Rhodos and for Melos with the following distinction. The more closely we approach the mother country, or the Greek element proper, in geographical relation, the more defined will be the Greek transformation toward the tendencies of independent Greek art in the Egyptian or Oriental form. The less the local population is subject to contact by residence with masses of foreign settlers, the less will its local art-forms show a foreign element. In the case of early Greek vases, wherever found, there are two possibilities—importation or local manufacture. It is generally admitted that the Melos vases belong to a local centre (Conze). The Rhodian vases undeniably represent, as regards the lotus flower, a more immediate relation to an original lotus form, as found on Kypriote vases, than do those of Melos.²⁰

tion of *Naukratis II*, soon to appear. A letter from Gen. C. G. Loring, Director of the Boston Museum of Fine Arts, makes it appear that certain results offered in this paper relating to the Egyptian origin of the Greek palmette have already been reached by him from the study of the Naukratic vase fragments in Boston.

¹⁹ They are presumed to be of the VII cent., as appears by reference in DUMONT et CHAPLAIN, p. 220; to articles by CONZE, *Bullettino*, 1861, p. 9; and by DE WITTE, *Rev. Arch.*, 1862, t. VI, p. 403.

²⁰ The reasons are apparent why the forms are less Grecianized; for the Greeks both of Egypt and Rhodos were more permanently subject to foreign influence at a later

In considering the various aspects of the lotus designs of Kypros, and before making comparative observations for Rhodos, Melos and Attika, we are not to forget the much earlier Egyptian lotus motives abundantly illustrated by Prisse d'Avennes (*Hist. de l' Art Égyptien*).

It has been already observed that we find in the Egyptian examples, for instance in PL. IX-1, 2, just as in PL. I, a mixture of conventional with naturalistic aspects—the same connection of more or less naturalistic designs with conventional motives which originally must have been developed after the first naturalistic designs—and we have exposed in the subsequent Kypriote, Rhodian and Melian development the method by which the lotus spirals of Egypt (PL. x-1, 2) must have originally been developed. In the same way the heart-shaped (“herz-blatt”) lotus motive of the vases from Melos (PL. IV-15) occurs, in more conventional form, on the ceiling of a tomb of the XII dynasty at Beni Hassan (PL. x-7). On the other hand, the lotus designs of Kypros do not exactly resemble any published from Egypt, unless it may be in lotus borders, and there is no reason why they should. They are pictures made by local potters and are interesting in the evidence they offer as to the general methods by which a conventional design develops. The tri-angles (I-14, 15, 16; x-15, 16, 17; XI-20-25; XII-6, 10), with and without the little knob-shaped appendages which are ultimate rudiments of a lotus spiral (I-8-12) and which are then reapplied to designs having

time than those of Melos. The Greeks of Kypros had been permanently exposed to Oriental influences for many centuries. The native Greek element rose one point higher than the Oriental, in assertion of an independent character, but this Greek element undoubtedly exerted more influence toward the development of native Greek art, than a purely foreign influence could have done on Greek territories farther West. On this account, the Oriental Greek art of Kypros, however wanting in appearance of independent character, deserves an important place in the history of archaic Greek art. At the opening of the V century it may be conceded to have had already not only a provincial character, but also one without influence on the at that time more highly, or differently developed, art of the more western Greek territories. In the VI, VII and VIII centuries, the times of greatest prosperity and activity among the Greeks of Kypros, we have no right to consider them as we do the Kypriote Greeks of the V century when overpowered by Phœnician influences, and under sway of hostile Persians. As well judge Venice of the XVI by Venice under Austrian domination in the XIX century.

In the early part of the VI century Nebuchadnezzar's partial destruction of Tyre, at that time the dominant Phœnician city of the mother country for Kyriote Phœnicians, gave a remarkable impulse to the prosperity of the Kypriote Greeks (DUNCKER, *Geschichte des Alterthums*), which ceased with the Ionic revolt, about 500 B. C., in which they were concerned.

the independant spiral (1-1, 4), are most interesting;²¹ so are the little flowers, with stems hanging from above the volutes, of 1-1. The stems of similar lotuses appear as filaments in another design, 1-4, and would be otherwise inexplicable if we had not this evidence.

In both Egyptian and Assyrian sculpture we have now the evidence that in natural progress the conventional form is later than the naturalistic, and this rule appears here to hold also in the history of ornament as applying to certain geometric patterns.

For the general possibilities of lotus development in almost any direction these comparisons are important; but in the comparison with Rhodian and Melian lotus patterns we have only to consider the Kypriote forms used already to demonstrate the origins of the Ionic capital (PL. 1-1-5). Compare with these the lotus patterns, PL. III-1, 2, 3 (two from vases, of related character, in Salzmann's *Nécropole de Camire*; and one from a vase in the *Monumenti inediti*);²² all of which vases I am inclined to designate as of Naukratic or Græco-Egyptian style, after comparisons with fragments of pottery in *Naukratis* and with colored fragments given by Ernest Gardner (*Jour. Hellenic Studies*,

²¹ Transitions to the rounded appendages of PL. 1-9 are seen at 6, 7. 1-10 shows the step to the knob of 1-4 by "action in return." The knobs and the rounding lines about them of 1-14 elsewhere disappear, leaving a geometrical triangle, as in x-17. PL. 1-15, a lotus upside down, forming part of a border of the neck of a vase, is a step toward x-15, 16. PL. 1-20 shows a phase of triangular decoration of the last stage but one from a lotus design. There is only one more stage; it may be observed in the Lawrence-Cesnola photographs and is very common in the Metropolitan Museum, namely, bands of lines, as seen in xi-20, xii-9, having knobs on the outer sides which are borrowed from knobbed lotuses. For instance, in xii-7 there is the reminiscence of the lotus volute (as derived from xii-5, for example) at once on the lotus and on the triglyph like bands on either side of the bird. At xii-8, the knob has left the flower and is only seen on the bands. xii-9 is from a vase on which it is the only decoration. PL. 1-8 is a lotus tree, *i. e.*, a "Sacred Tree," as will subsequently appear. 1-11 shows buds, attached above and below the knobs. At 1-17 we see buds growing from a flower. 1-12, 18 are partially opened flowers, having petals rounded at the top, an important point in connection with the position hereafter taken that the Greek palmette may be derived from the lotus form alone rather than from the lotus-rosette (palmette) combination found in Egypt. At 1-19 we see the calyx leaves about to fall from the flower. 1-21 is a highly typical lotus form which assists to specify forms found elsewhere which, from floral appearances or on botanical grounds, might be almost anything else. Compared with 1-15, turned upside down, the transition is clear, the triangles intermediate between centre and sides being omitted.

²² References are entered as far as possible directly on the plates, and where this is done are not repeated in the text.

loc. cit.). For convenience of comparison a Kypriote lotus is figured at PL. III-4. It is clear that the patterns of Nos. 1, 2, 3 are a more stylistic and a more Grecianized expression of the Kypriote lotus patterns. Turning to the lotus patterns on vases from Melos on PL. IV, and in the first instance to Nos. 1, 2, 3, these are again related to those from Rhodos, as those from Rhodos are related to those from Kypros. The first three patterns of PL. IV are still more stylistic, still more Grecianized, expressions of the Rhodian forms. In PL. IV-1 the petals are triangular; in 2 they assume the palmette aspect; in 3 the palmette aspect is fully developed.²³ No. 11 contains the elements of the anthemion in a form related directly to No. 3. No. 16 is an elementary expression of all Greek scroll designs, and may be compared with x-1, 2. It leads us back to the variant III-8, which is simply a refined expression, at a later date, of IV-11. It is clear that IV-15 is a variant of IV-3 (middle portion) and of IV-11. From IV-15 we pass without difficulty to v-6, hitherto considered a form of ivy. v-11 is another variant. The *herzblatt* ("heart-shaped leaf"), v-6, appears reversed in IV-9, which also thus becomes a lotus derivative.²⁴ IV-5, 7 and 8 are from early Attic vases, and exhibit rude imitations of Melian or similar forms.²⁵ Phases

²³ Whether the palmette of IV-2 develops directly from a form like III-1 and 2, or whether it comes from an overlaying influence of the Egyptian and Egypto-Phœnician palmette, subsequently to be explained, is possibly a debatable question. Prof. Allan Marquand has suggested the latter hypothesis and, as it may occur to others, I will consider it here and recur to the question again. There is no doubt that rounded petals appear in Kypriote lotuses, I-12, 18, which do not offer any suggestion of a palmette influence and I presume that the aspects of later Greek decoration in vases are explained, in the rapid execution of decorative borders, *etc.*, by a brush stroke which was naturally heavy at the start and narrowed to a point as it closed, producing the rounded petal form. We have, in III-1, 2, aspects of a lotus pure and simple, produced evidently by a symmetrical filling in of intermediate spaces of a form like III-4, simplified like I-21, but retaining the volutes. No palmette intermixture need be assumed between III-4 and III-1 and I do not see why any is required between IV-1 and IV-2. Of course the way is perfectly clear from IV-2 to IV-3 and from IV-3 to IV-11. As it will appear that the original palmette is also a lotus the question is not one of great importance.

²⁴ This design appears on a vase, published with others, by BÖHLAU in the *Jahrbuch d. Archäolog. Instituts*, 1887, pls. 3, 4. From these plates are taken IV-5, 7, and 8 (all marked "B." 1887.) Motives like IV-9, on objects from Spata will be familiar to students (*Bull. de Corr. Hellén.* vol. 2, pl. xv-1, 3). See also the familiar Mykenian motives on plates x-6, 10. Compare the Stele from the Sanctuary of Artemis Limnatis, in SEMPER, *Der Stil*, II, 421. One of the borders of the Amathus sarcophagus relates to IV-15 (*Descriptive Atlas of Cypriote Antiquities in the Metropolitan Museum*, I, pl. CXLIX).

²⁵ Nos. 5 and 8 are related to 11; No. 7 is an aspect of 14. Patterns similar to 14

of the Proto-Ionic appear in iv-10 and 13, and these again are derivatives of such forms as are seen on the shield, iii-6. These latter forms become lotus derivatives by the relation to the Kypriote ii-5.²⁶ iii-5 is from the same vase as iii-6, and shows an exaggerated phase of the triangle of iii-4, combined with the lotus spiral iv-16. iv-17 is a reminder of the constant appearance of ordinary lotus borders and lotus forms in connection with those which are more remote, and it will presently be observed that the constant presence of "rosettes" with these patterns is an allied lotus phenomenon.

A curious aspect of the lotus triangle and volutes is offered by the funeral stele on a vase published by Benndorf, v-8, which may be compared with x-12.²⁷ The designs of PLATE V have been generally chosen to exhibit in developed Greek art the more palpable reminiscences of its lotus origins. Nos. 2 and 4 are terracotta motives of a late period; 2 is a palpable lotus-anthemion; 4 has the Proto-Ionic triangle in two aspects; 5 is a palpably reminiscent form, or combination, of the lotus-palmette; 9 is a reminder of the constant association, in later art, of lotuses with developed palmettes, but with a form of the anthemion which is partially archaic. In the Græco-Etruscan art, to which this design belongs, the reminiscent archaic aspect of lotus derivatives will be found on examination to be very general. An instance is offered by vii-11, the foot of an Etruscan cist of the III century B. C., or later. I presume that v-4, of Græco-Roman art, is to be explained through this Græco-Etruscan characteristic.²⁸ vii-11 shows a reversed form of lotus volutes as compared with vii-12, from the Grotta Campana, which ranks in antiquity with the Regulini-Galassi tomb: compare the lotus on the sphinx head, vii-6, from the Regulini-Galassi tomb. The reversed aspects of lotus volutes, where both turn inward toward a common centre, is remark-

have already been designated by BIRCH as "a sort of trefoil lotus" (*Pottery*, p. 184), but he did not advance otherwise in the direction which this observation might have suggested.

²⁶ iii-7 becomes intelligible when turned upside down. The elemental form then appears as that of iv-11, with the outward curving lower lines produced in curve till they meet one another over the palmette. Again, looking at the design iii-7, held upright, the intervening palmettes resemble those in iii-8. It is only a question of scale.

²⁷ An unbroken example is given by FURTWÄNGLER and LOESCHCKE in *Mykenische Vasen*, pl. xxxvi-364, where the streamers of the stele are conceived as serpents.

²⁸ A related fact is the aspect of the Tuscan Doric, noted by Mr. CLARKE (*A. J. A.*, II, 3, p. 267) as a Proto-Doric survival.

ably illustrated by the Kypriote vase published by Ohnefalsch-Richter in the *Journal of Hellenic Studies*, v, p. 103. It also appears in early Egyptian examples like VII-8.²⁹ The introrse scrolls of the so-called Phœnician palmette (*e. g.*, upper part of II-9) are hence derived. To return to other illustrations of PLATE V: the vase motive, V-7, is chosen as a general type of the connections between the Greek anthemion and the lotus, leaving the architectural examples to suggest themselves.³⁰

It is clear from the foregoing that the capital from Neandreaia does not belong to a necessarily or probably Assyrian Proto-Ionic. Lotus triangles and lotus palmettes are interchangeable. Both apparently represent the petals, or rather are derived from them. An aspect of the Neandreian capital appears IX-3 (XVIII dynasty), and may be frequently noticed on Greek vases.³¹ As regards the Egyptian Proto-Ionic form just quoted, and many others, it is to be presumed that the Egyptians had originally developed their lotus spirals, as the relation of Kypriote, Rhodian, Naukratic, and Melian forms shows that the Greeks subsequently did: compare X-1, 2 with IX-3. The direct influence of the pure Egyptian motives and of the Phœnicianized Egyptian motives was evidently strongest in the earliest periods of Greek history, as shown by the Mykenai spirals and other decorative aspects of the "Mykenai culture."³² Two things are clear: Greek ornamental art developed from the lotus motive: Egyptian art shows parallel results as regards the lotus spiral, at much earlier dates.

It should be observed that the detail represented by IX-3 appears, inside a spiral motive (in outlines like the Ionic of Bassai), and that, on the same page of Prisse d'Avennes, an exactly similar spiral design exhibits the spirals starting from lotuses as in X-1, 2.

III, IV.

The query, What has become of the "Assyrian" palmette and of its supposed influence on Greek art? must now be met. Is it not possible

²⁹ PRISSE D'AVENNES, "Choix de Bijoux," XVIII dynasty (?), and "Ornam. des Plafonds; Legendes et Symboles," XVIII dynasty.

³⁰ V-10 appears to show the anthemion rounded petals on a palpable lotus, but it may be a case of rosette association to be presently explained.

³¹ Notably GENICK and FURTWÄNGLER, *Griechische Keramik*, XVII, and ZANNONI, *Scavi della Certosa di Bologna*, LXXIX.

³² The independent Greek art development, beginning in the VIII and VII centuries, appears to have travelled a road which the Egyptians had apparently left before the evidence of their monuments begins, but Egyptian pottery may yet be found showing the curled calyx leaves.

that it reacted on and over-lapped the lotus palmette and mixed with it in such a way that the two cannot be separated? I answer that the so-called "Assyrian" palmette (VII-9, 13, 14) does not appear on any archaic vase in the large New York collection. It does not appear elsewhere on any published vases showing the archaic lotus palmettes. This is one answer.³³ Another requires more space, but is quite definite. There is an Egyptian lotus palmette of obviously Egyptian origin, and antedating the known Assyrian palmettes by at least one thousand years. This Egyptian motive is found in numerous Phœnician examples and it appears to be the original form of the so-called Assyrian palmette. There is scarcely any evidence, on the other hand, in favor of the natural and general presumption, which gave the Assyrian motive its name, that the Assyrian palmette is a conventional form of the palm-tree and that its volutes are derived from the pendent bunches of dates (as explained for instance by Mr. Clarke). If the supposed Assyrian form, which so constantly appears in Assyrian art in combination with lotus designs of admitted Egyptian origin, is a Phœnician modification of the Egyptian lotus palmette—if, in other words, lotuses and palmettes are one and the same thing in origin—it is easy to understand why the Assyrian derivative did not react with much vigor on its Phœnician counterparts and originals. A direct Egyptian influence on Assyria must also be assumed since the XVIII dynasty, when Nineveh was inside the Egyptian frontier and Chaldæa was an Egyptian tributary.

The question of Assyrian influences on Greek art largely turns on the Phœnicians, for if these had more influence on Assyria than has been commonly supposed, and more than Assyria had on them, the reaction of Assyria through Asia Minor only repeated an influence which came to the Greeks more directly and in stronger ways. In Dumont et Chaplain, *Céramiques de la Grèce propre* (pp. 133 and 136), there is a very fair admission of the unknown quantity which lies in debate between Phœnician influence on Assyria and the counter hypothesis. It is admitted that the earliest remains of Assyrian decorative art are strongly Egypto-Phœnician. That Hittite and Phœnician architect-

³³ The Egyptian lotus palmette (and its Phœnician copy) appears to have been mainly confined to metal, or to relief designs based on metal originals. These do not seem to have been directly imitated by the Greek vase painters, but it is more than likely that their influence promoted the development of the Greek palmette from the lotus motives of the vases.

ure was carefully studied by the Assyrians is proved by a number of royal inscriptions, especially those of Sargon, which state expressly that, in building the royal palaces at Khorsabad and Kouyundjik, the Hittite palaces were imitated. Such facts do not minimize the Chaldæan element in Assyrian civilization, which, of course, was fundamental and far more powerful than any other; and the relative barbarism of the Assyrians in relation to the older Chaldæan culture is generally admitted. The real civilization of the Tigris-Euphrates valley had long preceded the period of Assyrian military power, and long outlived it. It is not detracting from this civilization to acknowledge Phœnician influence on Assyria. The view that the rosette is an Egyptian lotus motive gives new importance to the action of Syria on Assyrian art.

In the lotus motives so constantly repeated in Egyptian decoration there are a number in which lotus flowers and lotus buds support a rosette form (PL. VI-2, 6, 17), just as in other cases a lotus flower supports a lotus bud or a lotus leaf (PL. VI-1, 10). These rosettes are likewise constantly found in association with lotus motives on the ceiling decorations (x-1, 5). In Egyptian representations of vases we also find cases where stalks supporting rosettes alternate with others supporting lotus flowers or lotus buds, and in some *not* "brought as tribute by the Kefa."³⁴ Examples of these various appearances are as common for the XVIII and XIX dynasties as for any period: that is, they antedate the Assyrian related motive by at least seven hundred years. It may be observed, here, that rosettes constantly accompany the lotus motives of the Kypriote, Rhodian, Melian and Naukratic vases, but they have been generally considered as an indication of Asiatic style. Notwithstanding the constant appearance of these ornaments in Egyptian decoration (x-1, 3, 4), so long antedating anything known of Assyrian art, the presumption that they are a distinctly Assyrian motive is strangely fixed in current archæology. Longperier (*Musée Napoléon III*, in text for pl. XXIX) remarks that the rosette appears as a decoration on certain vases offered by Asiatic tributaries (the Kefa, supposed to be Phœnicians) in reliefs at Karnak; with the direct and purposed implication that it is not a native form in Egyptian art, but a Phœnician derivation from Assyrian art.³⁵

³⁴ PRISSE D'AVENNES, "Vases en or émaillé: " two plates, and several other cases.

³⁵ Only one explanation of this suggestion can be offered, viz. that the publication of Prisse d'Avennes dates from 1879. It should be noted that in the published architectural reliefs, the rosette is rarely found in Egyptian decoration. In the

What is the connection between the rosette and the lotus? There is no difficulty in answering this question. An examination, in the *Description de l'Egypte, Botanique*, pl. 60, of the ray-shaped stigma which, in different aspects, crowns the ovary of the blue and of the white lotus, *figs.* 14, 15, furnishes the answer.³⁶ The ovaries or seed-capsules of all varieties of the lotus contain seeds which were made into flour for food by the Egyptians: to this end, the lotus was sowed as a crop during the inundation.³⁷ This use of the lotus seeds for

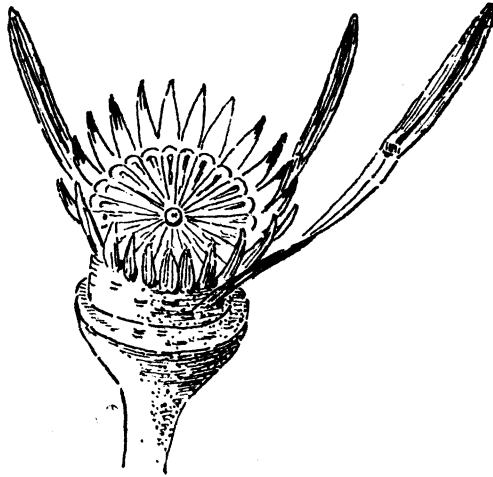


FIG. 14.—*Egyptian Lotus: stigma and ovary (white variety).*

painted decorations, for the first time abundantly illustrated by Prisse d'Avennes, it occurs constantly, and almost invariably in connection with lotus motives or with spirals which derived from them. The contrary holds of Assyrian art, where it is in carved reliefs but also with lotus motives that the rosette is a familiar decoration. The Assyrian carved reliefs have always been the most abundantly illustrated department of Assyrian art, and Egyptian decorative motives in wall painting were generally unfamiliar to untravelled students before the publication of Prisse d'Avennes. Some writers assume that works of art imported into Egypt by Phœnicians must demonstrate that the art which was imported was foreign to Egypt. On the same principle if a king of France presented a work of French Renaissance art to an Italian dignitary of the XVI century, this work of art would show that the forms of Renaissance art were derived from France and not from Italy. The earliest remains of Assyrian ornamental art date from the IX century. The earliest instance of a Babylonian rosette appears to be that of the XII century—on the garments and mitre of Merodach-idin-akhi (DIEULAFOY, *L'Art Antique de la Perse*, I, pl. IX).

³⁶ These two distinct aspects are also exactly represented by a large number of the gold objects from Mykenai, as shown by Dr. Schliemann's illustrations.

³⁷ The picture designated as a "Joute des Mariniers" in Prisse d'Avennes shows

food makes it clear why the top of the ovary was a familiar aspect of the flower; which was frequently, in Egyptian symbolizing fashion, represented at once in a double aspect. Thus we understand the bud or the flower which supports a picture of the ovary stigma. Let us observe in the next place certain lotus borders where the flower supports an object shaped like a half-moon (VI-9, 12). This is a portion of the top of the ovary shown "in plan," rising above the flower. In this particular case, as no rays appear, it may be the circular top of the seed-capsule of the rose-colored lotus. The yellow color of the original corresponds to the color of this seed-capsule when the flower is in bloom. It is now possible to understand the Egyptian lotus-palmette, VI-15, 16, 18, *etc.*—which is simply a combination of the voluted form

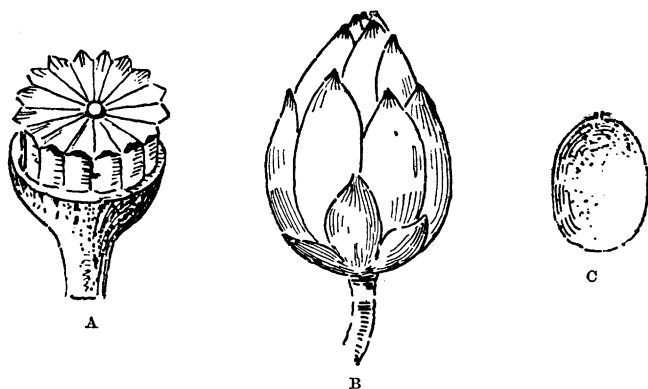


FIG. 15.—A. *Stigma of blue lotus*: B. *Lotus bud*: C. *Lotus seed (rose-colored variety)*.

of lotus flower with the ray-shaped ovary stigma. The various aspects of lotus volutes and lotus spirals in these designs (PL. VI-1, 15, 16, 17, 18, *etc.*), are made comprehensible by the development of lotus spirals and volutes already considered: compare II-3, 9. No doubt many rosette designs may be explained as views of a flower with expanded petals seen from above, but these are not the clues to the lotus-

in reality a quarrel between the boatmen of craft loaded with baskets of seeds of the rose-colored lotus (*fig. 15-c*). Lotuses are also piled on the boats and surround them. Seeds of the rose-colored lotus observed in the lotus ponds of Mr. E. D. Sturtevant, at Bordentown, N. J., were about as large as small filberts. The taste is agreeable in the raw state, not as raw as the taste of a chestnut but something like it. The nurseryman in charge said that boys of the neighborhood ate them as they did chestnuts, as the plant has been naturalized and grows quite plentifully in ponds of considerable size.

palmette combination. The rosettes of petals have pointed rays and these are never found in the palmette.

Other phases of lotus combination may be noticed in this connection. A lotus supporting the seed of the rose-colored variety, No. 7: a bud supporting a bud, No. 8; a rosette supporting a leaf and bud, Nos. 11, 13; a seed capsule supporting a bud, No. 14. PL. VI-1, 20, giving voluted lotuses supporting a bud, explain IX-4 and many similar forms. This bud is assumed, by M. Dieulafoy, to be the ovary or seed capsule, in his theory of the Ionic capital, in which he considers IX-4, to be the normal form. He does not specify which variety of ovary is intended, and *figs.* 13, 14, 15-A show that there are three varieties. The monuments show that the Egyptians did not represent a conventional botanical section of the lotus but that they distinguished accurately the three varieties of seed capsule, pictured as seen from above, *i. e.*, the ovary stigmas.

It is now clear why the Kypriote lotuses I-2, 3, exhibit rosettes figured on the central petal triangle. In the "Lawrence-Cesnola Collection," phot. 11, a flower generally resembling I-1, 2, 3, has rosettes within the volutes which entirely surround them—a prototype of the rosettes originally decorating the centre of the Erechtheion volutes or of the Sicilian capital v-1. In *Salaminia*, p. 255, there are lotus rosettes in the lotus volutes. The rosettes within the Ionic volutes of the capitals of Susa and Persepolis are also a case in point.

The remarkable palmette in gold, originally enamelled, from Tell Defenneh (Mr. Petrie's excavations) in the Boston Museum of Fine Arts, is roughly figured, at VI-21, by the kind consent of Gen. Loring.³⁸ The date is presumably that of the XXVI dynasty, but there is no question of the independently Egyptian character of the palmette form, here elongated for decorative reasons. The Egyptian character is determined here by the voluted lotus support. The two amulets in blue porcelain of the Boston Museum of Fine Arts, 22 and 23, also figured under disadvantageous circumstances, are substantially accurate as showing that the palmette, derived from the voluted lotus, is an original Egyptian form.³⁹ As regards the amulets, the objection based on

³⁸ I regret very much that, on account of hasty publication, I have been obliged to depend on a memorandum sketch, not intended, when made, for use in publication.

³⁹ In MARIETTE'S selection of typical sepulchral amulets (*Album du Musée de Boulaq*, photo. 17) there are three palmettes like VI-23, and five "rosettes," figured as ordinary and characteristic Egyptian forms.

uncertainty of dates and the natural objection of an Assyrian derivation during the VIII and VII centuries, still has to be met, but this is easily done, and the point which answers this objection also determines the Egyptian character of the Phœnician palmette motives of PL. VII-1, 2, 3 (bronze) and 10 (silver), from the Regulini-Galassi tomb (*Museo Etrusco Vaticano*, I, XVII). In VI-1, 3, 15, 16, 17, 18, 19, 22 and in IX-1, little tabs or streamers are seen under the volutes, as also seen in II-9. These may be originally lotus buds, judging by a reversed arrangement in IX-2, where buds are clearly represented. These distinctively Egyptian tabs are not found in Assyrian palmettes except in bronzes (one only known to me⁴⁰) of a class which are conceded to be Phœnician. In this case the palmette is the same, as regards the tabs, as that of the Regulini-Galassi tomb. This tomb and the Grotta Campana belong to the earliest period of Etruscan tombs, and the former has well-defined relations in construction with those of Mykenai and Tiryns. There can hardly be a doubt, therefore, that the Phœnician palmettes VII-1, 2, 3, defined by the tabs or streamers as being of Egyptian derivation, precede the Assyrian examples. The resemblance between these Nos. and VII-9, 13, 14 is so close that there can be no difficulty in admitting an Egypto-Phœnician derivation for the "Assyrian" palmette. Nos. VII-6, 10 and IV-12 are from the same tomb. Comparing IV-12 with IV-5, we have a new demonstration that the latter is a lotus form; while a comparison of IV-6, from an Etruscan vase, with VII-12, from the Grotta Campana, gives a new demonstration that IV-6 is a lotus form.⁴¹

VII-15, from an Etrusco-Phœnician cist, shows the reaction of a voluted lotus derivative, like IV-6, on an independent lotus flower, which is supported by it. By comparing the palmettes and other lotus decorations on this cist, in the *Monumenti inediti*, VIII, PL. XXVI, the unity of the motives will again militate against the Assyrian origin of the "Assyrian" palmette.⁴² The curious forms on an archaic Etruscan vase published by Lenormant (*Gaz. Arch.*, VII, 32), which look

⁴⁰ LAYARD, *op. cit.*, plates for bronzes: not clearly shown, in fact not shown at all, in the same pattern, PERROT, II, 736.

⁴¹ PL. VII-5, from the Amathus shield (COLONNA-CECCALDI, *Monuments*, pl. IX), is a very common Phœnician lotus palmette, especially on the pateræ. It relates to VII-4 from Persepolis (OWEN JONES, XIV-4). VII-7, from Susiana, a tile decoration discovered by M. Dieulafoy (*Revue Arch.*, July-Aug., 1885, and *Harper's Mag.*, June, 1887), also showing the Egyptian tabs, relates to VI-21.

⁴² This cist dates from the VI or VII century, but the style of the motives is earlier.

like representations of a rising sun or moon are proved to be lotuses by comparison with v-10.

M. Dieulafoy has asserted decisively the precedence of the Egyptian palmette as against the Assyrian, and the derivation of the latter from it (*op. cit.*, III, 61). He assumes that the elemental form of the Egyptian palmette is the *flabellum*—the semi-circular ensign frequently seen in the reliefs and paintings. This is, in reality, a half section of a rosette form composed of rayed lotus petals.

V.

If the Assyrian palmette is a lotus it is necessary to face the problem of the "Sacred Tree." Hence the designs of PL. VIII. No. 1, a detail of an Assyrian relief in the Metropolitan Museum of Art, shows the hatched incised lines by which the lotus-bud is often covered in Assyrian reliefs. Compare VIII-2, the object held by the divinity facing the "Sacred Tree," with the bulbous bud of the rose-colored lotus, in *fig. 13*. I have no argument to offer about this object, aside from the mention of certain apparently related facts. The advice of a competent Assyriologist is to the effect that the texts throw no light upon the subject of the origin of the Assyrian "Sacred Tree,"⁴³ and that no hypothesis on the subject is extant. *Fig. 15-B* is a sketch from nature (the lotus-pond mentioned at Bordentown, N. J.) of that aspect of the rose-colored lotus which appears to have been indicated—in accordance with the naturalistic tendencies of Assyrian art—by the hatched incised lines, producing that resemblance to a fir-cone which has caused this designation to be accepted in default of a better one.⁴⁴ In *fig. 15-B* may be observed, in the overlapping leaves of the bud, an effect resembling that of the scaly surface of a fir-cone. The following facts are related to this observation. In the tile decoration, Place, III, 15; Perrot, II, 308; two winged divinities holding bud-shaped objects, not detailed, face the lotus rosette. In the relief figured by Perrot, II, 108, the divinity introduces the bud-shaped object into a lotus palmette. A divinity holding the bud-shaped object described above is associated with an adorer facing him, bearing an antelope and a branch of ordinary

⁴³ That is, there seem to be no traces of it in early Babylonian mythology.

⁴⁴ The introduction of this effect in the buds of *figure 13* would have contradicted, by its detail, the general treatment of the cut, and it was therefore avoided in that illustration.

lotuses: Perrot, II, 108. At VIII-5, 6, 7, 8, are hands of similar Assyrian worshippers, from designs in Layard, holding lotus emblems.⁴⁵

The observation as to the hatched incised lines of the lotus bud VIII-1 defines as lotus "trees" all "Sacred Trees" which correspond to VIII-4. The "Sacred Tree" of the Kypriote vases in Perrot (III, figs. 518, 521) is a lotus tree. The "Sacred Trees" of the vase published by Ohnefalsch-Richter (*Journ. Hell. St.*, v, p. 103) are a remarkable illustration, PL. XI-16 (one of the lotus rosettes is not illustrated), but scarcely less so are the steles supporting lotus triangles with knob-shaped appendages as in PL. I, XI-22, 24 in the Lawrence Cesnola Collection (phot. 13). Lotus "trees" are frequently found in Egyptian design, as is shown, for example, in VIII-3. Compare Horus as a hawk within a lotus tree, *Description de l'Égypte*, III, 60.⁴⁶

I am informed by Mr. Ch. E. Wilbour that, in Egyptian worship, the lotus represents the reproductive aspect of Osiris: hence the Horus-child rising from the lotus, or the Horus hawk in the lotus tree. The Phœnicians, those cosmopolite worshippers, may have transferred to Assyria an aspect of this cult.⁴⁷ It is quite clear that II-10 of this paper represents an adorer and a lotus tree, and in this connection

⁴⁵ 5, hand with branch of lotus rosettes; 6, hand with branch of lotuses having rosettes at the base; 7, hand with branch of lotuses and buds detailed as in VIII-2; 8, hand bearing a branch of lotus palmettes. This association is significant. PL. VIII-9 shows the lotus buds, as explained by VIII-1, rising from the rays of a lotus palmette—on an embroidery with ostriches. This combination is also significant. Another phase of the branch, not illustrated, is seen in PERROT, II, 513, where the worshipper faces a "Sacred Tree" of lotus buds which rise from a lotus form of the same aspect as that seen at the bases of the flower and buds of VIII-1. This is an aspect generally recognized, and very common. It appears, for instance, in the capitals of the terracotta ædicule, PERROT, III, 277; on several colonettes figured on the Balawat Gates, etc. The branch here in question shows a vegetable form usually classed as a pomegranate. It appears very often in lotus and lotus-palmette borders—on the ivory, PERROT, II, 730; in the "Sacred Tree," PERROT, II, 685; in the border of embroidery, PERROT, II, 774; and in the enamelled brick fragments, PERROT, II, 311. From these last illustrations, of considerable size in the detail (the latter with a border of lotus palmettes), it may be concluded that the object represents a lotus, of the simplified form noted at the base of buds and flower in VIII-1, or resembling v-9, supported by a magnified seed, a disk, or a conventional rosette. This so-called pomegranate is very common on the borders of the vases from Kyrène.

⁴⁶ Also the "Genii of Amenti" on the lotus, *ibid.*, II, 72.

⁴⁷ It will occur to persons not versed in Assyriology that the "eagle-headed" divinity who frequently faces the lotus tree may be an Assyrianized Horus, who constantly appears in Egyptian art as a hawk-headed human figure. In the British Museum photo. 355 the head appears to be more that of a hawk than of an eagle.

attention may be directed to the vase published by Ohnefalsch-Richter (*Jahrb. arch. Inst.* 1886, pl. VIII) representing a man in front of two large lotus flowers, one of a conventional the other of naturalistic design.⁴⁸

VI.

It is singular that the Egyptian Proto-Ionic forms, such as IX-1, 3, 4, have attracted little attention from students, but the demonstration of the derivation of one form of Ionic capital, as offered by Kypriote monuments, must draw new attention to the possibility that Proto-Ionic forms, as they appear in Egypt, may also have exercised a direct influence on Greek Ionic. This suggestion has been formally made by Auer in the *Zeitschrift für bildende Kunst*, 1880, No. 10, in a series of three papers devoted to the Egyptian Proto-Doric triglyphs.⁴⁹ It is apparent that the lotus volutes of Kypriote vases and the lotus spirals of Rhodos and Melos, throw a new light on the way in which the Egyptian volutes and spirals must have developed, and on their connection with lotus forms, with which in Egypt they are constantly associated. From this point of view it is an obvious conclusion, though it may not be superfluous to state it once more, that Greek and Græco-Phœnician vases repeat an evolution of lotus spirals and volutes which must have taken place in Egypt several thousand years before. The spirals of Mykenai, and the ceilings at Orchomenos and Tiryns, are sufficient reminders that the ultimate results of Egyptian lotus development were also directly transferred to Greek decorative art in the earliest, as well as in later, times. It is not to be overlooked, on the other hand, that naturalistic lotus motives are combined with the extreme conventional developments at all times in Egypt, just as they are combined in the same Kypriote designs. We cannot be certain, simply on account of the lack of remains, that Egypt and Egyptian-

⁴⁸ Figured also by REINACH, *Revue Arch.*, 1885, II, p. 360; and PERROT, IV, p. 564. Reinach has already related the design to the Assyrian "Sacred Tree." Compare the lotus and solar disk, PERROT, III, fig. 234 and LAJARD, *Culte de Mithra*, XXXI-3, with various associations of the Assyrian sacred tree and solar disk.

⁴⁹ My reference was obtained from DURM, *Die Baukunst der Griechen*, p. 11. Durm's own reference to Ionic forms as derived from Egypt—"die aus dem heissen Aegypten entnommenen ionischen und dorischen Bauformen"—must refer to the construction, as he cites Semper on the Ionic capital. DE SAULCY in his *Voyage autour de la Mer Morte*, sustained the view that the Ionic of the tomb of Absalom at Jerusalem, generally ascribed to a late period, is of a date corresponding to the traditional designation. Auer makes no reference to the lotiform origin of the Ionic capital.

ized Syria did not exhibit designs—in pottery, for example—contemporary with those in Kypros of a more or less related character. But, as far as remains are concerned, the Kypriote lotuses are the only ones whose naturalistic forms directly relate their volutes to the down-turned calyx leaves of the natural flower, and consequently they are the only forms which give a clue to more highly conventional phases of the Egyptian volutes and spirals. The comparative study of Kypriote lotus forms shows that the lotus was in Kypros, as in Egypt, a decorative fund, of which various conventional aspects were combined, separated, or reunited, while the natural flower was still observed and copied and also made a basis of decoration. In accepting the possibility of a direct transmission of the Egyptian ornamental Proto-Ionic forms to Greek art, a question already suggested may also be discussed: Did not the Egyptian or Egypto-Phœnician lotus palmette directly produce the Greek? On this head exact conclusions must come from Naukratis. The necessary dependence of this paper on published illustration, aside from Kypriote vases, and a want of acquaintance with the Naukratic pottery discovered since the publication of *Naukratis I*, make any pretence to positive conclusions impossible. As a matter of provisional suggestion, this may be said. Evidences on PL. VI derived from ornamental details mainly on ceilings of the XVIII–XX dynasties, and from a few ornamental remains, do not themselves demonstrate that the palmette, which the Phœnicians evidently took from Egypt, was as controlling an ornamental fashion there as it became in Assyria. Regarding the Phœnicians and their influence on the Greeks in the matter of transmitting the palmette, let it be remembered that this influence must be conceived as entirely and absolutely subordinate to that exercised by the Egyptians themselves after the foundation of the Greek colonies in Egypt. Since the discovery of the scarab factory of Naukratis, and the obvious identity proven by Naukratic fragments to exist between the Græco-Egyptian style and that hitherto presumed to be Asiatic, the theory as to the Asiatic aspects of Greek and Italic art, in the VII and VI centuries, falls to the ground.⁵⁰

I do not myself think that Greek decorative art experienced much influence from the combined lotus-rosette form, *i. e.*, the Oriental pal-

⁵⁰ W. FROEHNER's demonstration (*Collection Charvet*) that the polychromatic opaque glass, so long considered Greek, because so constantly found in Greek tombs, is Egyptian, points now to the direct Græco-Egyptian export of these pieces.

mette. It appears, on the evidence of vases from Rhodos and Melos as related to Kypriote, to have developed a palmette form of its own from the lotus itself. As far as pottery is concerned, the fact that the Egypto-Phœnician palmette does not appear on the Kypriote vases in the Metropolitan Museum, or on those of Rhodos which bear the lotuses necessary, as a connecting link, for the comprehension of the Melian style, points to this conclusion. In Melos also the decorative style points less to a mixed form like the lotus-rosette combination than to an independent development of the lotus flower motive into palmettes and volutes of its own device. Although, on this supposition, Phœnician influence loses its importance for the Naukratic time, it gains for that of the Mykenai culture. The comparisons of PLS. X and XI give but a slight indication of the overwhelming evidence for the dominance of lotus derivative forms in the Mykenai period. Before briefly considering these, the lotus origins of the egg and dart moulding may be pointed out.

The demonstration of an Egyptian origin for the Ionic capital and for the Greek anthemion is curiously corroborated by the fact that the egg and dart, or egg and tongue, moulding is derived from a form of Egyptian lotus border. The juxtaposition in illustration of the Naukratic architectural relief designs (IX-9, 10) with lotus borders from Kypriote vases and with a *repoussé* bronze relief from Olympia (IX-8) will make all argument on this head unnecessary. The relation between the egg and dart moulding and the lotus border was published, in 1856, by Owen Jones, and in 1870, by M. Léon de Vesly,⁵¹ but in a somewhat cumbrous and unnecessary way. The observation, with both these writers, refers to a border of lotuses with intervening bunches of grapes.⁵² The egg between the darts is supposed, by them, to have grown from the bunch of grapes, and M. de Vesly also supposes that the "fir-cone" between lotuses in Egyptian borders has also been the starting point of the egg portion of the egg and dart. This mistake about the "fir-cone" was probably caused by the bulbous form of the lotus buds represented. The lotus border IX-6 shows the alternating buds and lotuses, but it is not the bud which grew into the "egg." This bud is still represented on the "egg" of one line of the Erechtheion moulding and appears also on the "egg" in IX-9. If we reverse

⁵¹ *Société centrale des Architectes: Annales*, 1871.

⁵² OWEN JONES, *Grammar of Ornament*, notes to plate VII "Egyptian Ornament": PRISSE D'AVENNES, *op. cit.*, "Frises Fleuronnées."

the border 1X-6, it appears that the "egg" is simply the rounded relief which results from cutting the flowers into relief by incision. This appears more clearly by reversing the *repoussé* bronze from Olympia 1X-8, where the outlines of the lotus assume the form of 1-21. Nos. 9 and 10 are also perhaps more evidently at once egg and dart mouldings and lotus borders, when they are reversed.⁵³ The supposed leaf decoration painted on the Doric capitals will appear also, if closely observed, as a lotus border of "egg and dart" type. 1X-5 has been noted by Mr. Petrie, in *Naukratis I*, as corresponding with the neck-ing ornament on the columns of the Erechtheion, and is illustrated as corroborative.

VII.

PL. X is designed to associate the Egyptian lotus spirals and "rosettes" with Mykenaian art forms. It also serves to present a suggestion hardly susceptible of demonstration, viz., that the so-called "Greek" fret is a derivative of the lotus spiral.⁵⁴

The ceiling from Orchomenos, X-5, shows a design which has been

⁵³It is clear that the bud itself which remains on X-9 has nothing to do with the development of the "egg" form. No. 1X-7 was the lotus border which first struck me as being an egg and dart moulding. It represents two lines of border like 1X-6 turned in opposite directions and placed together. It is a well-known law of Greek architectural decoration that its movement was one from colored decoration in flat to carving in low relief. The carving becomes deeper and the relief higher as time advances. The absence of projected lotus borders in Egyptian art and the fact that the egg and dart moulding first appears in projection in Greek use does not contradict this. The projected egg moulding alone appears during the V dynasty (DIEULAFOY, *op. cit.*, III, 62).

⁵⁴PL. X-4 is mentioned as a lotus spiral on account of the constant association which may be observed with lotus rosettes and on account also of the constant association of the spiral and the lotus, as observation of the Egyptian motives in Prisse d'Avennes will show. The usual association of lotus rosettes with the "Greek" fret in Egyptian decoration is significant in this connection. In Prisse d'Avennes there are six instances where the spiral starts from the lotus and where the design includes the rosette; four instances of the spiral and rosette; five of the fret and rosette; five of the motive like X-7 from Beni Hassan, which has been proved a lotus derivative; and two cases of the Ionic spiral which must be included in the lotus motives. There are only two additional cases of spiral motives; i. e., there are only two cases where some relation to a lotus derivation does not appear in the design itself. The "Greek fret" is now well known to be an early Egyptian motive. The suggestion that the Egyptian spirals like X-3 are variants of X-2 has already been made, by Prisse d'Avennes among others. The counter hypothesis is the more probable of the two.

already recognized as Egyptian, and Schliemann's *Tiryns* offers another example. I am not aware whether the lotiform character of the motive has been recognized.⁵⁵

PL. XI is devoted mainly to designs taken from Furtwängler and Loeschcke's *Mykenische Vasen*.⁵⁶ Under this heading are included vases from all parts of the Eastern Mediterranean which belong to the epoch of art and culture first revealed by Dr. Schliemann's excavations at Mykenai. The vases of the "Mykenai culture" evidently belong to a centre of manufacture quite distinct from that of Kypros. A certain number have been found in Kypriote tombs, as importations. They may be easily distinguished, for instance in the New York Collection, from the Kypriote examples, but the juxtaposition with Kypriote pottery offers valuable assistance in fixing some points as to dates of types in the latter. The Mykenian pottery has the characteristics of a thoroughly independent art as to details, but its motives, at least in plant life, appear to show the same curious relation, which is exhibited by later Greek art, with the one type of floral decoration to which hieratic and national predisposition confined the Egyptians. The authors of this publication have clearly seen that the most conventional types of this pottery decoration are the latest; that natural forms are the starting point, gradually modified by habits of current repetition, careless execution, or abbreviating methods, until in the course of centuries all conception of the original starting point has disappeared. The lotus motives here selected for illustration will probably in the main speak for themselves.⁵⁷

⁵⁵ PL. x-6 relates to the lotus derivatives iv-9, v-6, v-11. Related form at x-10. Both relate to *Mittheil. d. deut. Instituts: Athen. Abth.*, xi, pl. iii, 135, lowest design but one on the left. This motive appears constantly in the Mykenai period. PL. x-7 from Beni-Hassan. This spiral derivative is explained by x-8. This scheme was suggested by Mr. C. Harriman, of the Columbia College School of Architecture, from observation of the lotus borders 1, 2. A related lotus form on the vase at p. 160 of *Mycenae* leads me to suppose that the design of x-11 may also indicate lotus forms although it appears to be a lily. Nos. 9, 13, 14 are easily understood by recurring to preceding illustrations. Nos. 9 and 14 recall iv-7. The triangles of x-17 are probably derived from the lotus triangles on 15 and 16. Compare i-14, 15.

⁵⁶ Nos. 1-19, excluding 16, have generally the lettering "F and L", and all are marked with the plate numbers of the original publication.

⁵⁷ PL. xi-1, 2, 3 are motives not farther removed from the outlines of vi-5 and vi-14 than Phoenician transmission or departures in Greek imitation would naturally explain. As for the volutes of xi-1 and xi-2, they are infallible "ear-marks" of a lotus, however transformed or deformed. xi-5 is the hasty outline of a lotus palmette corresponding to vii-5; xi-4 is probably a variant of the same, cf. i-21; xi-6 is kin-

XI-14 shows two adjacent spiral designs, as on the original vase. The left hand pattern is an abbreviated form of a familiar motive, like IV-10. The evolution of the right hand pattern gives the clue to a large number of vase spirals. Here a third spiral takes the place of the abbreviated triangle, which is pushed to one side.⁵⁸

XI-20-26 are geometric patterns from the Lawrence-Cesnola photographs which are explained by the following plate.

XII-2 is derived from the lotus form XII-1, reversed and stripped of the volutes and upper projections. The same form is turned sideways in XII-3, 4. XII-6 is derived from a form like XII-5 reversed, stripped of volutes and intermediate petals. XII-7 shows the reminiscent volutes already explained, both on the lotus and on the upright bands, to which they have passed from the lotus motive. In XII-8 these rudimentary volutes have left the lotus and are seen on the bands only. In XII-9 the band with knobs has become an independent motive. The triangle XII-10 is defined as a lotus by these knobs (compare XI-20, 22, 24 and I-15).⁵⁹

Without reference to the dates of individual vases it is clear that the Kypriote geometric style as a whole must be later than the first lotus patterns which grew into it, and it is clear that there are no Kypriote-Phœnician vases earlier than those which show the lotus motives. We have here a curious parallel to the position reached as to the Egyptian Ionic volute and the Egyptian lotus spiral.⁶⁰

dred with VII-15; XI-7 is a conventional voluted lotus with lotus rosettes inside the volutes; cf. the Kypriote counterpart in the Lawrence-Cesnola Collection (*Salaminia*, p. 255) already quoted. XI-9 is clearly a later conventional stage of XI-7; cf. XI-13. XI-8 is referred without difficulty to I-15; XI-10 is a barbaric version of V-10; XI-11 relates to XI-6; XI-12 to X-1, 2.

⁵⁸ XI-15 is a phase of XI-3. XI-17, 18 are geometric patterns derived from XI-1 or 2. XI-19 is a decorative pattern derived from the outlines of the lotus-border which produced the egg and dart moulding.

⁵⁹ In XII-11, 12, 13, 14, we see associated four triangles like XII-10. Each one has driven its knobs inside the adjacent triangles. Hence a triangle motive with interior knobs, as seen in the triangles of XII-3, 4 and 15 and XI-26: cf. PERROT, III, fig. 507.

⁶⁰ I am able to announce that the *ankh* is also a lotus, although the illustration cannot be offered with this paper. The relations of the *ankh* to the triangle have already been suggested by Mr. PINCHES (*Babylonian Record*, August, 1887). These relations can be demonstrated. The lotus triangle with disk, as in the Phœnician "Sacred triangle," is the counterpart of the lotus amulet which forms the basis of the *ankh*. The "Genii of Amenti" stand on the lotus triangle in the relief shown by MARIETTE, *Album du Musée de Boulaq*, photo. 13.

According to Pierret⁶¹ the lotus was a symbol of the Resurrection. To Maspéro (*Hist. d. Peuples Anc.*, p. 42) the lotus, in Egyptian belief, was one of the mystic habitations of the departed spirit. It is as symbol of the Resurrection that the Genii of Amenti stand upon the lotus. According to Prisse d'Avennes the lotus was a symbol of life and of immortality. The starting point of Colonna-Ceccaldi's suggestion for the Ionic capital was a sepulchral lotus stele. The most beautiful examples of the Athenian anthemion are tombstones. The triangle stele in Benndorf (v-8) is a sepulchral monument. The triangle steles xi-22, 24, are on sepulchral vases and it may be that the entire lotus decoration of the Kypriote vases has a mortuary significance. In late Græco-Roman antiquity the lotus still retained its significance as a mortuary emblem.⁶² At Egyptian funerals the guests were given bouquets of lotus flowers.⁶³

The Gorgon-head in *figure 16* is from a Rhodian vase which has been lately published by Mr. J. Six, at the suggestion of Prof. Loeschcke.⁶⁴ Mr. Six observes that the nose is an inorganic ornamental form but he and Prof. Loeschcke have not noticed that it is a Proto-Ionic stele turned upside down. If any one should conceive that this is pushing one's case too far I further observe that the ears are Ionic capitals and that they help us to understand the nose. This Proto-Ionic joke of a Rhodian potter has not entirely lost its savor. It is a very interesting point about this vase that Mr. Six, who has devoted much study to the Gorgon type, believes it to be derived from Kypros.

W. H. GOODYEAR.

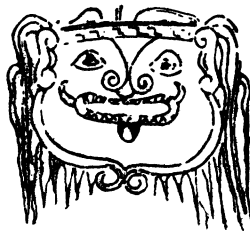


FIG. 16.—Gorgon-head from a Rhodian vase.

⁶¹ *Panthéon égyptien*, p. 62.

⁶² *Annali*, 1843, "Ornamenti funebri."

⁶³ OSBURN, *Monumental History of Egypt*, vol. I, p. 43.

⁶⁴ *Journal of Hellenic Studies*, vi, p. 275, pl. LIX.

Lotus Designs on Cypriote Vases

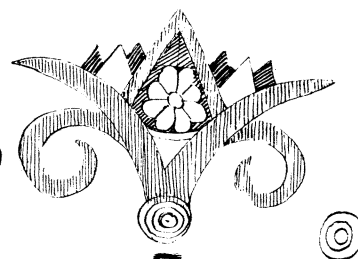
Plate I.



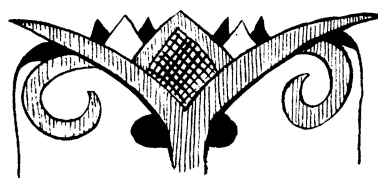
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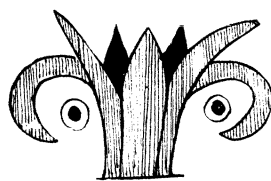
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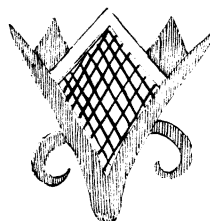
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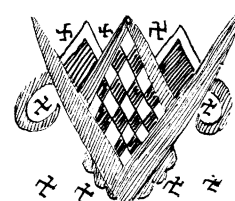
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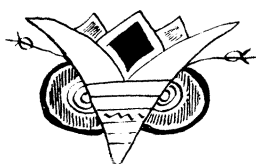
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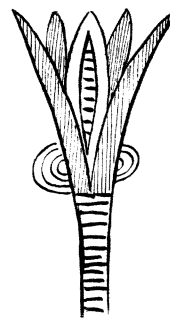
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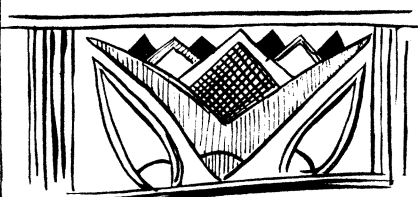
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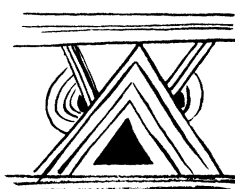
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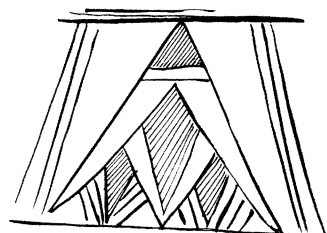
12



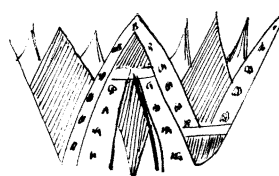
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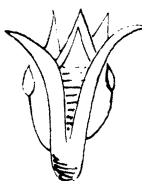
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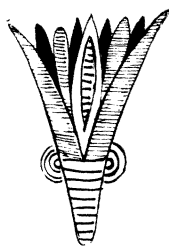
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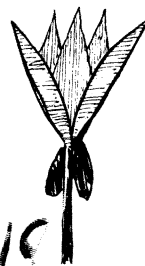
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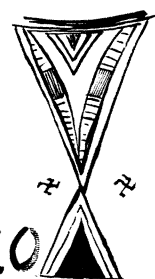
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18



19



20

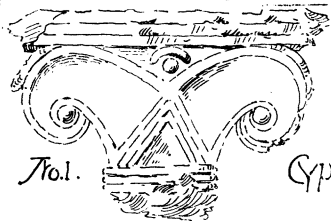


21

Ch.

Proto-Ionic Steles and Capitals

Plate II



No. 1.

Cyprus

Cyprus. Mus. Nap.
III. Pl. XXIII

No. 2.

Met. Mus. N.Y.



No. 3.

Nimroud.

[Ivory]

Perrot, II 535

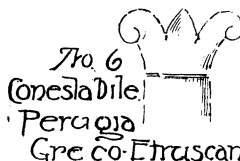


No. 4.

Sippara Tablet.
Clarke.

No. 5.

Cypriote Vase.



No. 6.

Conestabile.

Perugia

Greco-Etruscan



No. 7.

Bronze Stand.
"Olympia," Pl. XXII

No. 8. Leccardi. Cypre

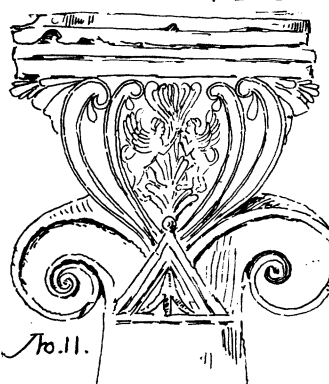
V. IV



No. 9.

Detail from Amathus
Sarcophagus

No. 10.

Ivory. Nimroud.
Perrot, II Pg. 222

No. 11.

Stele. Met. Mus. N.Y.
Perrot, III, Pg. 217.

Rhodian Lotus Forms Compared with Cypriote

Plate 76. III



No. 1

Rhodes. Salzmann's Camirus.
Pl. 32

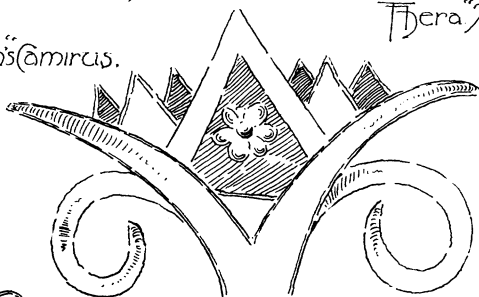
No. 2

Rhodes "Salz. Cam." Pl. 44

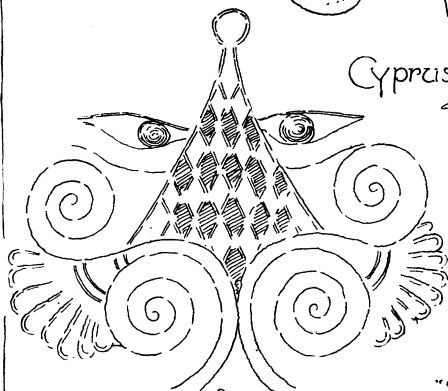


No. 3

Thera "Monument" VIII. V



No. 4

Cyprus "Met. Mus." No.
4639 E

No. 5

Rhodes "Salz. Cam." Pl. 53

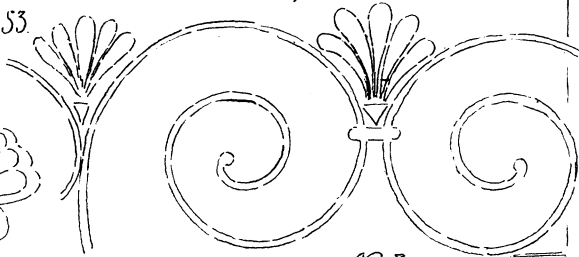


No. 6

Rhodes.
"Salz. Cam." Pl. 53

No. 7

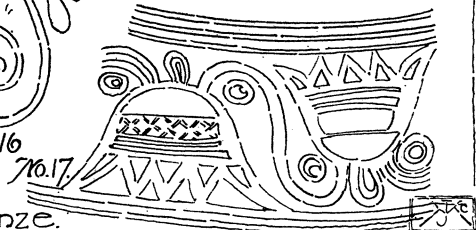
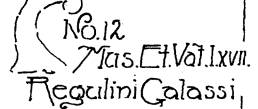
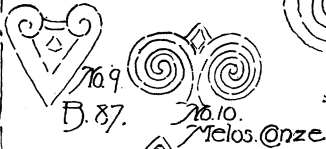
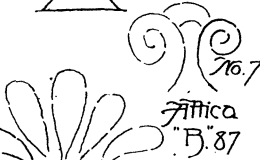
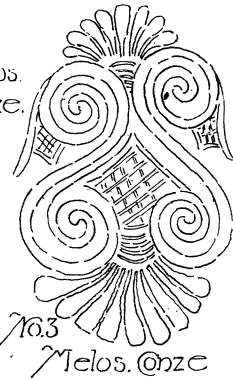
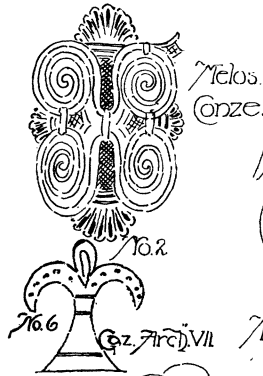
Rhodes "Salz. Cam." Pl. 53

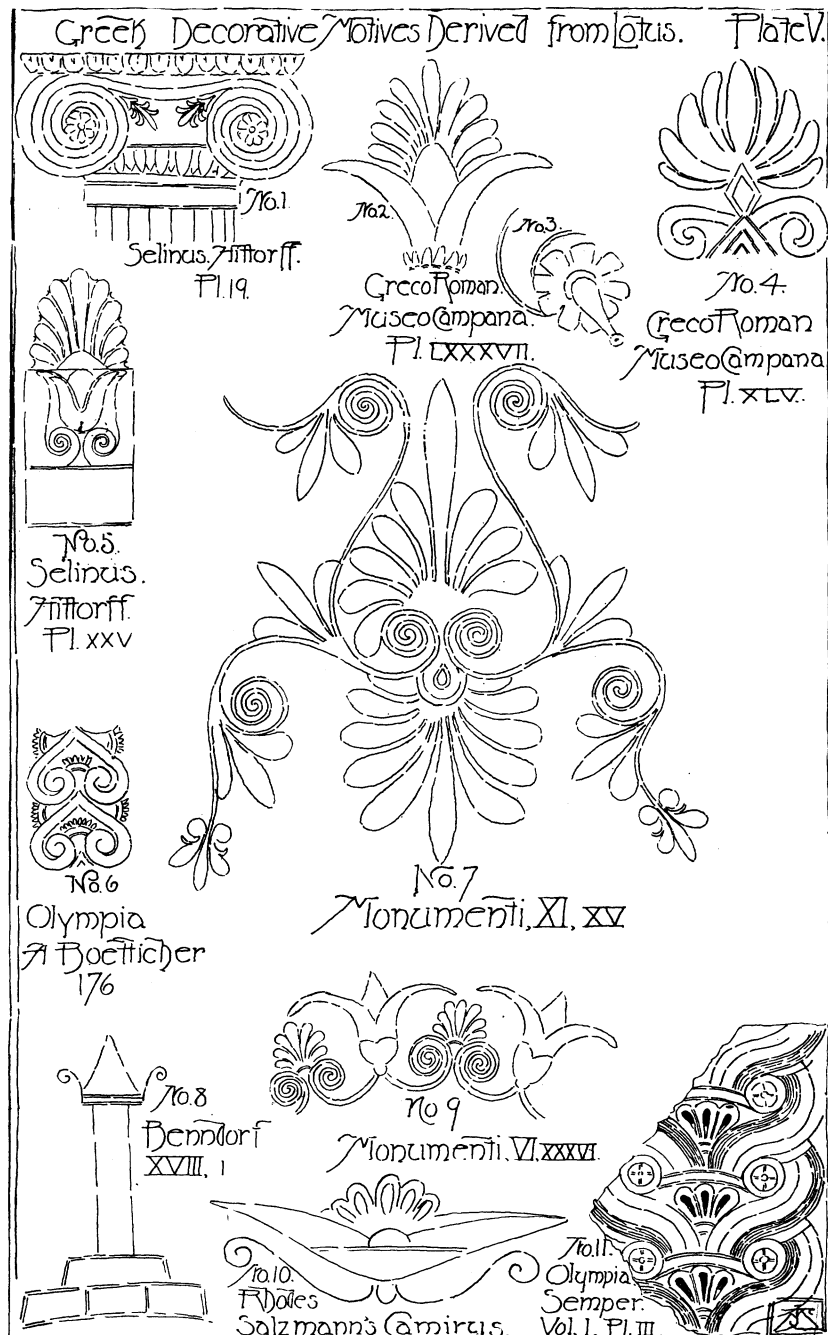


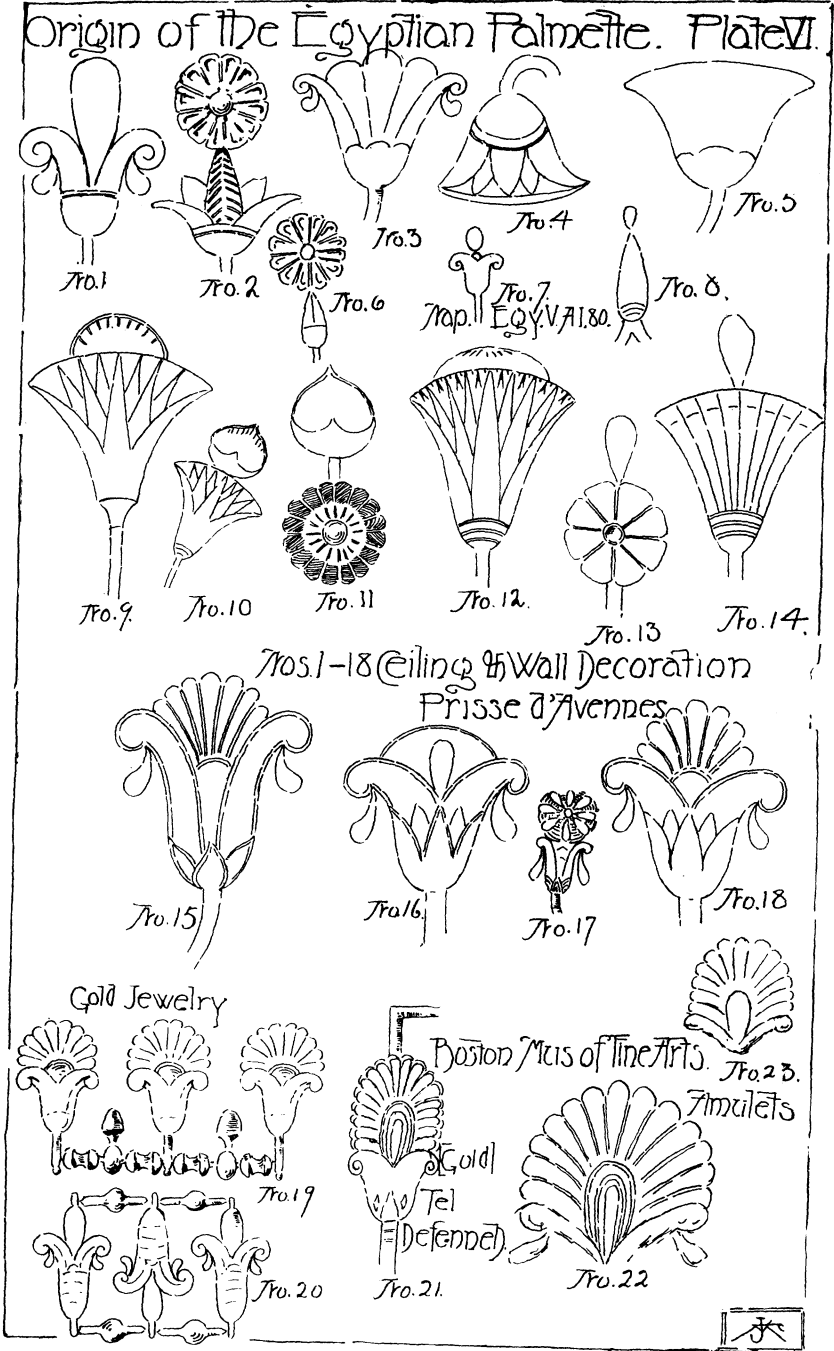
No. 8

Rhodes "Salz. Cam." Pl. 46

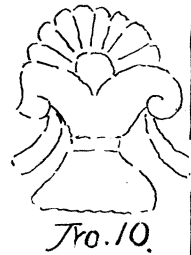
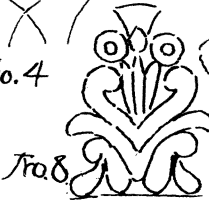
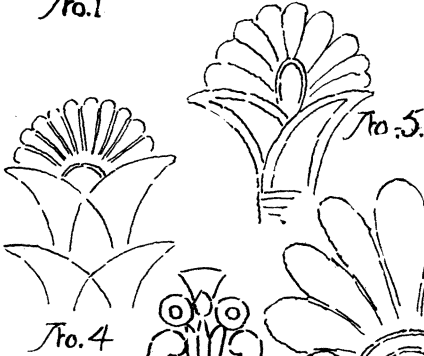
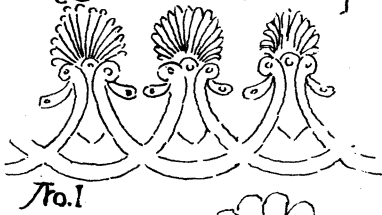
Melian, and Related Lotus Motives. Plate IV.



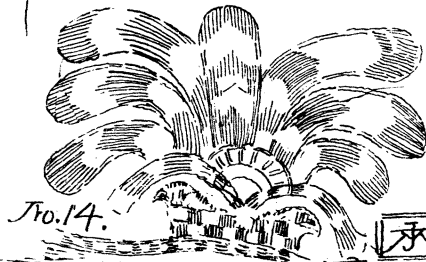
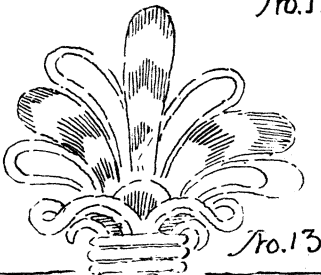
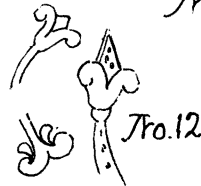




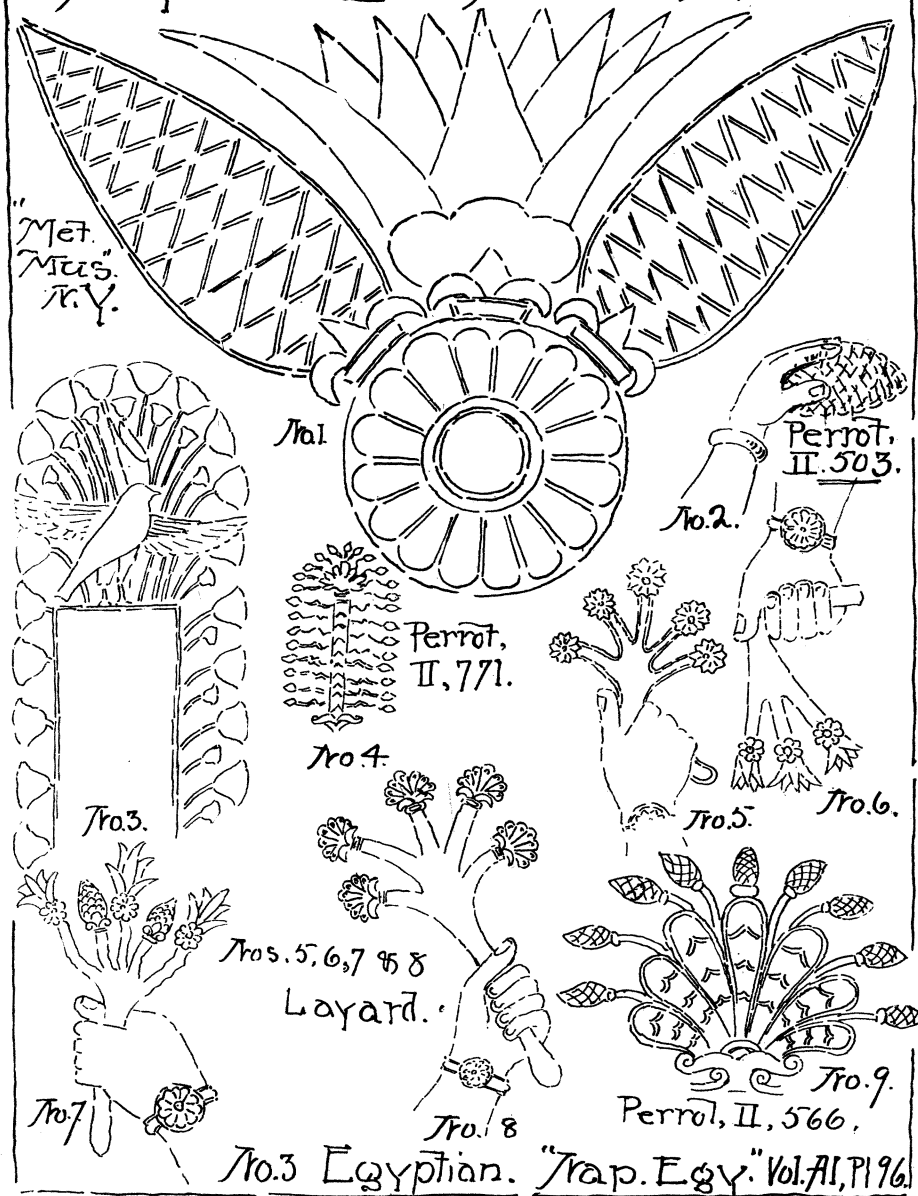
Origin of the Assyrian Palmette. Plate VII

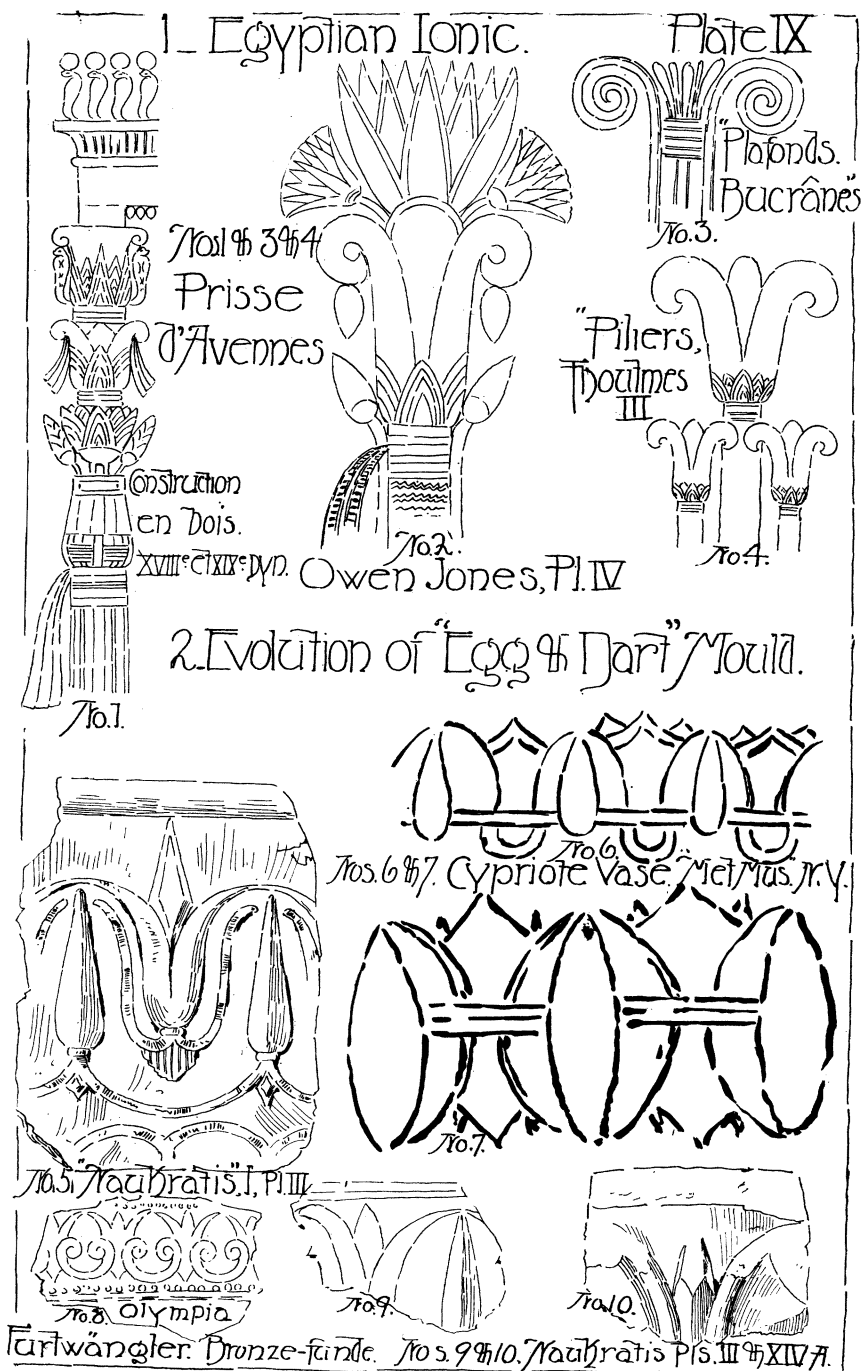


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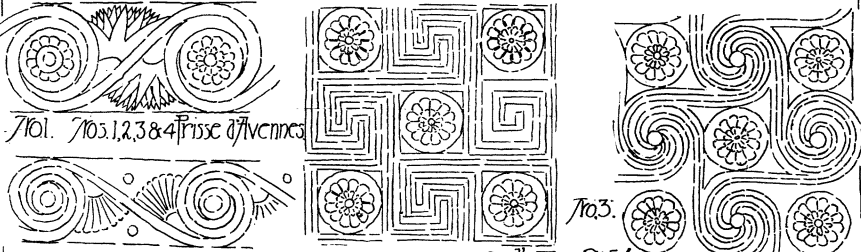


Assyrian Lotus Motives, Plate VIII





Egyptian, Mycenaean, and Cypriote Lotus Motives Plate X.



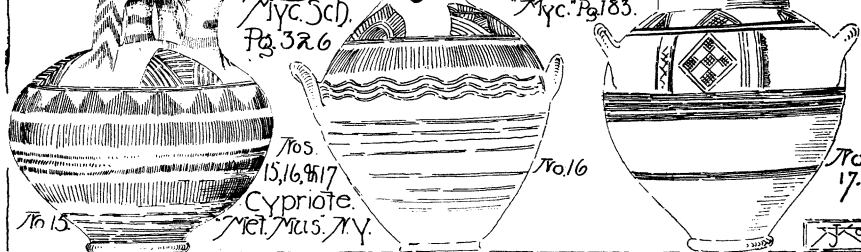
Nos. 1, 2, 3 & 4. Frises d'Ivories.
Nos. 1 & 2. Couronnements. Nos. 3 & 4. Guillochies Méandres & Frises fleuronnées. XVIII & XX Dyn.
XVII & XX Dyn.



No. 5. Ceiling Orchomenos. Schliemann.
No. 6. Mycenaean Sch. Pl. XII.
No. 7. Beni-Hassan. XII Dyn.
Nap. Egypt. Vol. I IV, Pl. 64.

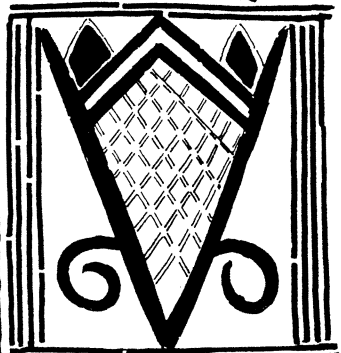


No. 8. Scheme for obtaining No. 7 from No. 1.
No. 9. Mycenaean Gold. Pg. 309.
No. 10. Italy 303.
No. 11. Dec Pl II Hera.

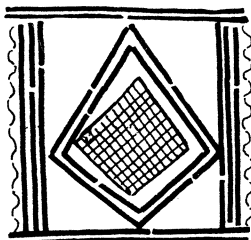


No. 12. Myc. Sch. Pl. VII.
No. 13. Myc. Sch. Pg. 326.
No. 14. Gold. Myc. Pg. 183.
No. 15. Cypriote. Mel. Mus. N.Y.
No. 16.
No. 17.

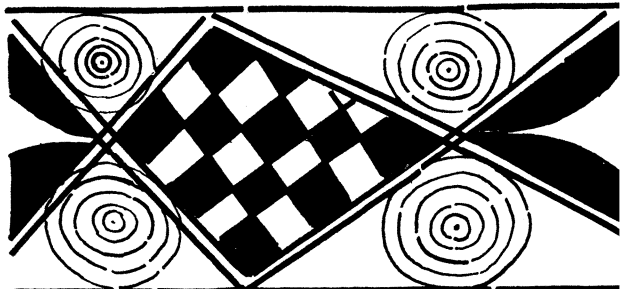
Geometric Lotus Patterns on Cypriote Vases. "Met Mus". Pl.



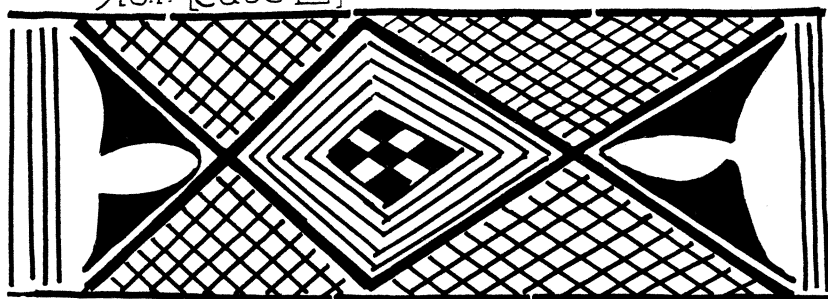
No. 1. [Case E]



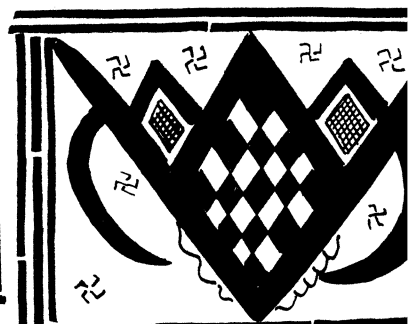
No. 2. [Case 25, 3545]



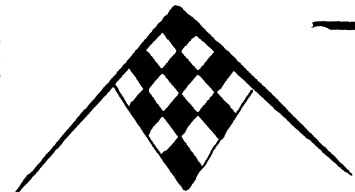
No. 3. [Case 31]



No. 4. [Case D, 3744]



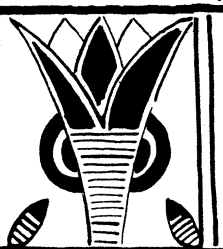
No. 5. [Case E]



No. 6. [Case 32, 3421]



No. 7. [Case 30, 4762]



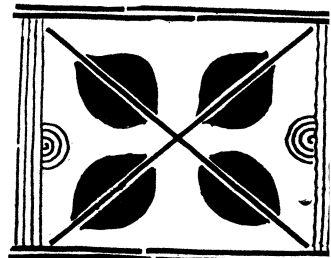
No. 8. [Case E]



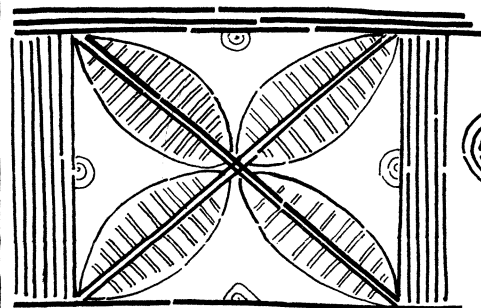
No. 9. [Case 32, 4853]



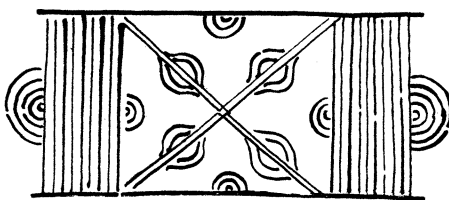
No. 10. [Case 30, 4646]



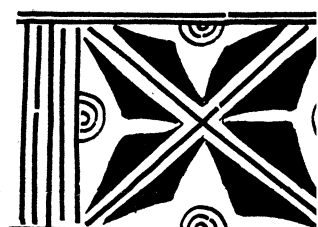
No. 11. [Case E]



No. 12. [Case E, 4641]

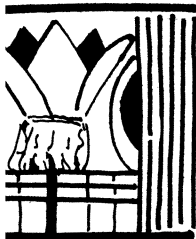
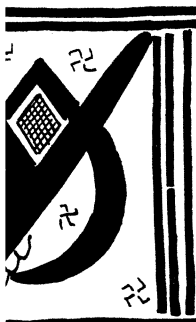


No. 13. [Case E, 4158]

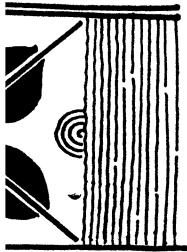


No. 14. [Case E, 4158]

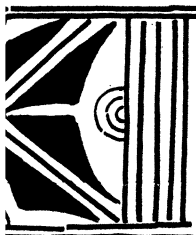
Plate VII



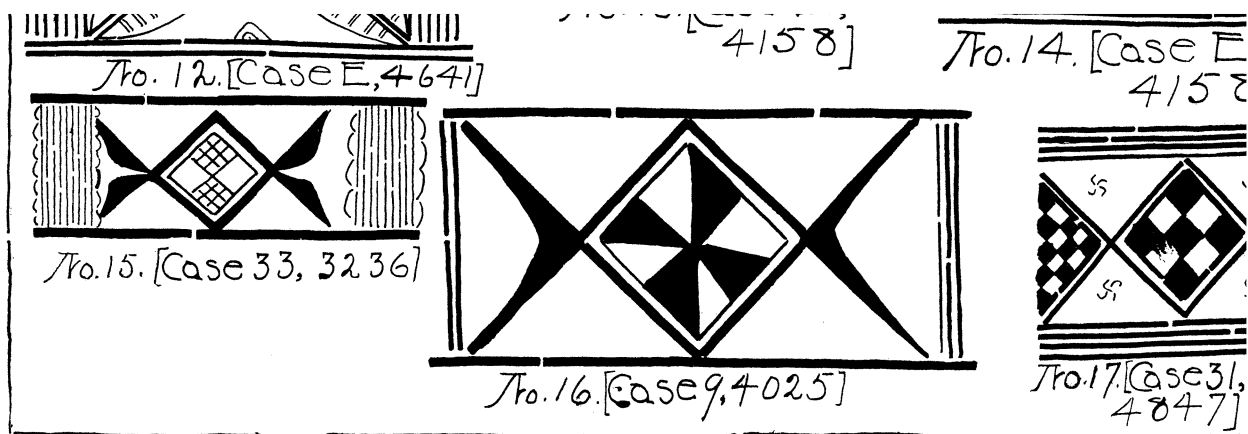
S. [C. 30,4645]



se E, 4158]



se E,
4158]



GEOMETRIC LOTUS PATTERNS ON KYPRIOTE VASES: METROPOLITAN MUSEUM, NEW YORK.

